

BUILDING A HOME H.W. DESMOND H.W. EROHNE



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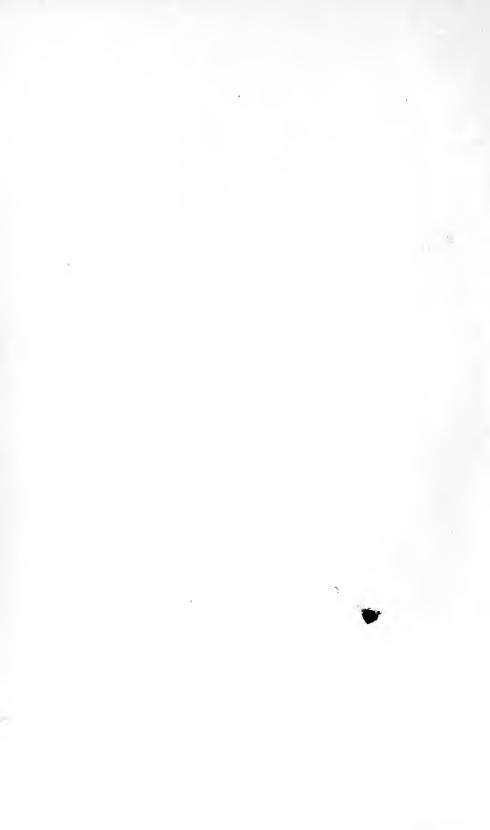








Fig. 1.—A good example of the type of suburban home to be found in the vicinity of Philadelphia.

A BOOK OF FUNDAMENTAL ADVICE FOR THE LAYMAN ABOUT TO BUILD

BY

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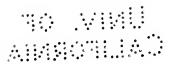
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WITH PHOTOGRAPHS AND PLANS

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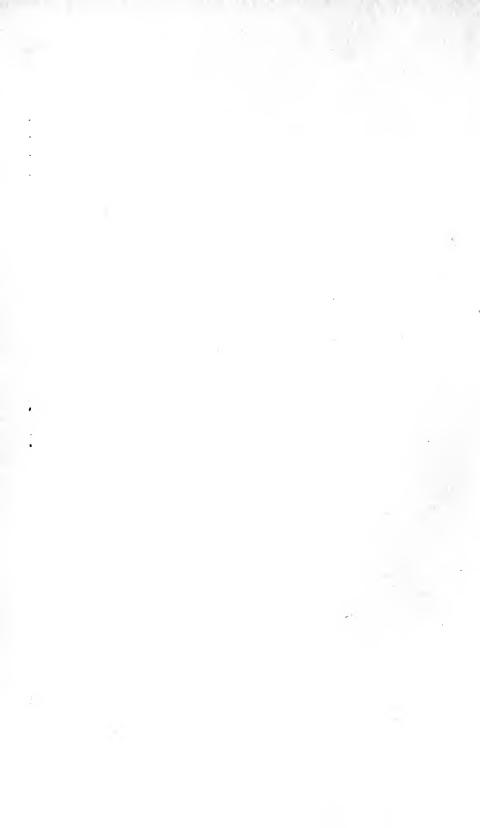


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$\cdot \textbf{CONTENTS}$

Introduc	TION				PAGE I3
CHAPTER	I.—To Build or not to Build .				18
CHAPTER	II.—Choosing the Site				25
CHAPTER	III.—"Style" and the Owner's Requi	REM	IENTS	IN	
	THE HOME	•	•	•	34
CHAPTER	IV.—Selecting the Architect		•		63
CHAPTER	V.—The Architect		•		83
CHAPTER	VI.—Architects' Drawings		•	•	87
CHAPTER	VII.—THE TREATMENT OF THE SUBURB	AN	SITE		96
CHAPTER	VIII.—FURNITURE AND DECORATION IN T	HE	Номі	Ξ.	117
CHAPTER	IX.—The Builder—His Selection and	H	s Fu	NC-	
	TION				143
CHAPTER	X.—THE CONSTRUCTION OF THE HOME	E .			165
CHAPTER	XI.—Broader Aspects of the Plan				179
CHAPTER	XII.—THE NATURE OF DESIGN				189
CHAPTER	XIII.—Truth and Beauty in Design			<i>.</i>	195
CHAPTER	XIV.—Decoration and Design				200
CHAPTER	XV.—Plan and Design				203
CHAPTER	XVI.—ART AND THE PRINCIPLES OF ARC	HIT:	ECTUE	RAL	
	Design				213
CHAPTER	XVII.—THE IMPORTANCE OF GOOD CONS	TRU	CTIO	Ν.	219



****	-0		
1.—An admirable type of suburban stone house . Fro	ntisp	iece	PAGE
2.—Colonial type of bungalow			47
3.—A simple, old-fashioned English type			48
4.—An original modern design			49
5.—An inexpensive shingle bungalow			50
6.—A design based on a study of Swiss chalets			51
7.—A meritorious English design			52
8.—Another picturesque English adaptation			53
9.—A design for a stucco or concrete exterior		•	54
10.—An admirable Japanese adaptation			55
11.—Rear view of Fig. 10			56
12.—A typical American design of the best class			57
13.—A thoroughly American design			58
14.—Another typical American design			59
15.—A simple treatment for a moderate-sized house .			60
16.—An unconventional suburban design			60
17.—A close study of the Old Colonial			61
18.—A clever fantastic design			62
19.—A California bungalow suitable for an artist's studio			71
20.—A modified English half-timbered house			72
21.—Another half-timbered house			73.
22.—A large bungalow with a more complicated floor plan			73
23.—An English design of a detached villa			74
24.—A simple modern design with unharmonious features			75
25.—A timber and plaster design with brick foundations			76

FIG.			PAGE
26.—A New England Colonial type with modern details	•	•	77
27.—A freely treated Colonial type	•		78
28.—An expensive half-timbered house in which much stone	is use	ed	79
29.—An example of timbered construction conjoined with mo	dera	te	
use of brick	•		80
30.—A patio in a California bungalow	•	•	81
31.—A modern version of a Colonial doorway	•		82
32.—Architect's geometrical drawings	•	•	93
33.—Treatment of an unrestricted plot			101
34.—A pretentious landscape treatment			102
35.—An extreme example of the adaptation of a building to	an u	n-	
usual site		•	103
36.—Interior of building shown in Fig. 35, making the best	of th	ne	
view	•	•	104
37.—An attractive house on a neglected site	•	•	105
38.—Simple treatment for the approach to a house .	•		106
39.—Another good example similar to that shown in Fig. 38	3		107
40.—An elaborate treatment of a long vista to a house.			108
41.—An elaborate landscape treatment			109
42.—An illustration of architectural features applied to the	ie su	r-	
roundings of a home			110
43.—Rustic pergola used as screen for service court .			111
44.—A simple but effective treatment of the site	•		111
45.—Another example similar to Fig. 44			112
46.—An old-fashioned treatment of the immediate surrou	ndin	gs	
of a house	•		113
47.—Pergola on an expensive scale			114
48.—Another form of pergola			115
49.—A garden suggestion from Japan			116
50.—A fireplace for a library			123
51.—A convenient form of sideboard and china closets			124
52.—A more pretentious sideboard			125

TIG.	PAGE
53.—A good type of old-fashioned sideboard	126
54.—An electrolier for a hallway	127
55.—An example of excellent simple furniture, woodwork and	
wall treatment	128
56.—A dining-room adapted from the Japanese	129
57.—An expensive treatment of a reception-room	130
58.—A den or sitting-room	131
59.—A general assembly room in a bungalow	132
60.—An excellent example of a general assembly room	133
61.—Another assembly-room suggestion	134
62.—A spacious treatment of an assembly room	135
63.—A more conventional arrangement of an assembly room .	136
64.—The "parlor portion" of an assembly room	137
65.—Another treatment of the "parlor portion"	138
66.—An effective arrangement for a living room	139
67.—A treatment of the ceiling to produce an effect of largeness.	140
68.—An inviting bungalow room	141
69.—A fireplace for a bungalow	141
70.—A well-designed living room	142
71.—A dining-room designed throughout by an architect	149
72.—A dining-room showing effective wall and ceiling treatment	150
73.—A modern dining-room	151
74.—An old-fashioned dining-room	151
75.—An expensive modern dining-room	152
76.—Another expensive dining-room	153
77.—A dining-room showing effective wall treatment and furniture	154
78.—An effective old-fashioned dining-room	155
79.—Another old-fashioned dining-room	156
8o.—A drawing-room	157
81.—An expensive library and study	157
82.—An old Colonial staircase and hallway used as a picture gallery	158
	J

83.—Another hall and staircase borrowed from the Old Colonial	PAGE
· ·	159
84.—A good example of the conventional hall and staircase	159
85.—An attractive expensive staircase which could be done	-6-
effectively at smaller outlay	160
86.—A Japanese suggestion for a staircase	161
87.—A tasteful hall and staircase for a general assembly room	162
88.—The dining-room portion of the assembly room	163
89.—An artistic staircase showing simple treatment of wood	
forms	164
90.—An old-fashioned bedroom	171
91.—A bedroom in a bungalow	171
92.—A bedroom of the Colonial type	172
93.—A bedroom corner	173
94.—An attractive bedroom in white	174
95.—An ample and practical veranda	175
96.—A veranda which may be transformed to a sun parlor .	175
97.—Modern equipment for a bathroom	176
98.—A modern kitchen	177
99.—The gymnasium in the home	178
00.—A suggestion for planning the modern kitchen	186
or.—Plan for a small house	207
o2.—Plan for a larger house	208
03.—A simple but effective plan for a brick or stone house of	
moderate size	209
04.—A simple plan giving the effect of largeness	210
105.—Plan of house adapted from the Japanese	211
106 — A good plan for a country doctor's house	212

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INTRODUCTION

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THE Big House is big enough to take care of itself. Whenever approached in books the treatment it receives leaves the average reader with something of the aloof sensations of a spectator at a play. Never does it become the subject of popular architectural manuals, as though it were a "lay" problem or a topic of familiar interest, suitable for exposition, admonition, and advice. Tacitly, all acknowledge that the Big House is strictly an affair for professional treatment. Even the Owner retires before the difficulties and complexities involved in planning, designing, constructing, and equipping the large domicile, admitting that technical training really is necessary for the adequate solution of the problems involved.

But if the Big House never becomes the subject of elementary or familiar literature, how different do we find the situation when we turn from this House Superlative to the dwelling of humbler pretensions! In a double sense every man is here "at home." Not only do treatises—"How to Build" and "How not to Build"—abound, but if we revert from literature to the living, and examine current notions and practices, we are led almost to conclude that every normal individual is born, like the bird, with an innate capacity to design his own habitation, if not also to construct it manually in an entirely artistic and practical manner. This kind of skill, like "Topsy," just grows everywhere. Should there be anyone so unfortunate as to lack this common, natural aptitude, happily, according to common ideas, there is

provided for such cases an adequate substitute, the Architect-Builder, an eminently useful person, dubbed by some irreverent individuals the "Artchitect." What the Owner cannot accomplish unaided the "Artichitect" surely can—and, to give him his due, usually does. There are, we all know, some fastidious persons who disdain the hermaphrodite Architect-Builder; but is the Owner to be blamed for turning to this secondary source of assistance? How can we impugn the logical process that concludes that if the untutored can in most cases "do" his own architecture by the simple efficacy of plenary inspiration, an "Architect-Builder," though lacking in all architectural training beyond the rules-of-thumb of the shop, can be substituted with results equally admirable? Should the "Architect-Builder" be lacking, or be at all timid as to his own qualifications for artistical achievement, there exists another resource—those ready-made plans and elevations that may be purchased as conveniently as the paper patterns of the dressmaker. And, finally, in a world so much of which is ready-made, are there not also provided for the would-be Owner's selection a fine assortment of ready-made houses? These are but the epit-ome and final step of "house building made easy." Art and Commerce are here united, and by the arrangement the average individual may travel from suburb to suburb, from state to state, and suffer no surprises in the houses he visits. Everywhere the current "home," like the current fashions in clothes, is familiar and friendly, presenting the same style of front, the same choice of materials, the same array of novelties in bay windows and cozy corners-all greeting him like old friends. The more he shifts his position the more the scene remains the same!

Would the authors of the present work suppress the natural instincts of the Owner, banish the untamed "Artchitect," abolish the duplicated art of the paper-pattern plan,

INTRODUCTION

and utterly prohibit the ready-made house? That is too much even for Reform to propose. We shall be content if we can succeed in suggesting that the Owner's predilections and ideas, though of course perfectly legitimate, should be restricted, that the Builder has only his limited uses, and that the ready-made house, except under certain circumstances, is not inevitable. Progress lies in getting these agencies, or those of them that are worth retaining, into their proper places. Too often to-day they are misplaced. Misdirection of effort, misappreciation of function, are in large measure the cause of the comparative worthlessness of the ordinary modern country house. For, generally speaking, it is worthless. No doubt it serves a purpose, serves it even with some measure of efficiency, and no doubt it satisfies, to an incredible degree, a large number of persons. But this efficiency and this satisfaction might so easily be not only greater in degree but of a much higher order! Let it be remembered we are speaking of thororder! Let it be remembered we are speaking of thoroughly practical possibilities, of betterments, if one may so say, that are purchasable "around the corner," without necessitating on the part of the Owner any greater outlay than he must make to-day. We are not pleading for the introduction into our houses of any of that queer compound of fad and dilettanteism which the "man in the street" has come to regard as "Art." Indeed, it is a sad commentary on the state of the public mind, and on much of current art also, that it is so everlastingly necessary to protest that Art—the real thing—is not an exotic or neurotic foreign to the legitimate requirements of everyday life. No doubt, as with Freedom, many crimes are committed in its name, but, as a matter of fact, true Art is not merely a spectator's concern or the plaything of the ultra-refined. It is essentially an element of common-sense living, analogous, in a way, to intellectual integrity, moral stability, or personal cleanli-

ness. This is the only Art that is really Art. The common notion that Art is a species of mental extravagance is very unfortunate. To analyze and define Art has been the purpose of many volumes. Such an analysis is not the object of this work; Art will concern the prospective Owner only in so far as it finds purposeful and concrete expression in the suburban house. In this restricted sense Art, as much as any other article of commerce, is a purchasable product. It is the result of directing to a definite problem the work of certain related agents or agencies. The work of these agents or agencies forms, therefore, the major divisions of our subject-matter. Each has a real and fundamental function which, if given undue proportion, or if slighted, must detrimentally affect the quality of the house. Such misdirection of effort is in fact the real reason for the existence of the "Architect-Builder" and the paper-pattern house. If we would relegate these makeshifts, for such they unquestionably are, to their proper places, we must exhibit them to the judgment of the prospective Owner, and show him that it is to his advantage to start, before embarking on his enterprise, with a clear idea of what is before him. He must be shown that there is no short cut or cheaper way to a successful result. This view does not assume that all Owners are uninstructed as to the proper procedure, that all Architects are capable, judicious, and artistic, or that all Builders are ignorant and unscrupulous. More important by far is it to acquaint the Owner with the scope of his own legitimate requirements, the proper way and time to state them; to tell him what the Architect does and why he does it; and to inform him of what the Builder is expected to do and to be held accountable for. How little understood are such matters of vital importance to the average person who contemplates building a home! If the following chapters help to a better understanding of the real issues at

INTRODUCTION

stake, this book is justified. The serious question that troubles the authors of this little treatise is: Does the average Owner about to build himself a house really desire advice as to the course he ought to pursue; or does he prefer to dabble along with "popular" architectural picture books and a collection of photographic "bits" that merely titillate the sense for the "Pretty" without yielding any solid instruction? On this score one has reason to fear the worst. There are so many curious notions abroad as to the efficacy of superficial knowledge, as though it were a species of superior labor-saving machinery. It is still true, however, that there is no royal road to learning, and the law seems to be eternal that the way to Wisdom shall be dull and tedious in proportion to the value and enchantment of the destination which the traveler seeks to reach. If these words do not discourage the Gentle Reader in pursuit of a home, he is, perhaps, of the Elect, and may with courage proceed upon the road ahead of him.

CHAPTER I

TO BUILD OR NOT TO BUILD

HE Chinese have a saying to the effect that it is the duty of every man to produce a child, write a book, and build a house. A career barren of at least one of these achievements is to be regarded as an unmitigated failure. Chinese wisdom often wears an appearance of exceeding commonplace or of intelligence upside down. But, really, if we look closely at our Mongolian test of a successful life, it is not so very far wrong. It is not the purpose of this book to treat even remotely of the first two essentials to success, but, in dealing with the third, we may surely declare that in the case of the average truly successful American citizen, he, at one time or another, betakes himself to his partner and commences to discuss with her the serious problem of building a home. It is just at this point, when he is in this initial, enterprising, inquiring, dubious frame of mind that the authors of this book wish to catch him-and with him, of course, his wife.

The building of every house commences in a desire, a determination, to build. This is really the first stage of the enterprise. Obviously, it is a prerequisite to further progress. Remembering the proverb, "It is the first step that costs," we wish to halt here to insist upon the fact that this stage, as with every other stage in the evolution of a house, should be attended by clear thinking.

Very few persons who build find they have built, as the children say, "for keeps." With the lapse of a few years,

TO BUILD OR NOT TO BUILD

sometimes a very few years, appears a sign, "For Sale or to Rent," on the newly erected home. If you ask the reason for this public announcement, you will find that the house, the conception of which was attended by so much enthusiasm, is to be abandoned because the location has proved unsuitable; the surrounding society, upon acquaintance, uncongenial; experience has demonstrated that the home is too far from the station or the city; too small for the increasing family; too large for the Owner's income. In a majority of cases these drawbacks or difficulties might have been anticipated in the commencement by a very humble exercise of forethought. That this is so is pretty well attested by the fact that the man who builds twice usually builds twice as well as the fellow who has built only once. The first experiment taught something. One must learn somehow, of course, but is there absolutely any reason why a man should have to build twice or thrice in order to arrive at a fairly satisfactory result, provided in the beginning he will learn from the experience of others? The great difficulty is to get the beginner to believe in advance that others know anything he does not know. The whole purpose of this book is to transfer, as far as possible, to the would-be homemaker the knowledge possessed by the "other fellow."

Starting, then, with the first discussion within the family about building a home—with the "to be or not to be" stage—the first thing the man who intends to build (the man whom, as the lawyers say, we will designate hereafter in these pages as the Owner) will hear, is objections to building at all. "Why build?" "It costs less to rent." "If you must own your own house, buy one second-hand; it is cheaper." "Building is a bother; why not purchase a home ready for occupancy?"

These questions, and all others like them, may be resolved into the primary inquiry: "Why build?"

Then there is another type of objection: "What will you do with your house in case your business forces you to change your dwelling place?" With this objection mental pictures usually are presented depicting the sudden flight of the corporation that employs you, of your store, office, or factory to Alaska or Manchuria. It all sounds very serious. But, after all, even these objections resolve themselves into: "Why build?" It is this one interrogation that the Owner must first answer definitely for himself.

Let us, first of all, in answer to these objections, make our admissions. Certainly, the annual outlay in rent for a home will be less than the cost of ownership—for a time. At the end of twelve or fifteen years, however, the home will have paid for itself, and then the Owner reaps his pecuniary profits. In the case of the lessee he will, after the lapse of an equal period, possess nothing but his old rent receipts, and must continue to pay the landlord as rigorously as ever. He has purchased no immunity. No doubt, too, a second-hand house may be bought for less than a new one, but that does not insure that it is really cheaper. Alterations and repairs are demanded, or will be, and these often cost as much by the inch as new construction by the foot. It is really much harder than people think to buy anything "cheap." Whatever is deducted from the price of a commodity is usually offset by an equivalent loss in use, availability, quality—general desirableness. There are, no doubt, "cheap" houses to be discovered in decaying or stationary localities, but elsewhere, rarely. And, besides, the secondhand house has all the defects of second-hand clothing. The man who can be satisfied with the ready-made home, new or second-hand, must answer the question: "Why build?" in the negative, and his case, good or bad, ends there so far as this book is concerned. As to the other objection founded upon the vicissitudes of life-certainly that has force in

TO BUILD OR NOT TO BUILD

building, as in all other enterprises that involve the future. A man about to build is preparing to concentrate and localize in a decidedly immobile form a certain amount of his capital. If his conditions are reasonably subject to change, he should, as the Irishman directed, "abandon his building before undertaking it." No doubt, in case of necessity, a house once built may be rented or sold, but, in general, a single house, built for one's own occupancy, is far from being the best kind of real-estate investment one can make, if investment and not use is the primary purpose of building. At any rate, let the Owner arrive at very definite conclusions with himself on this point. If the house is to be built primarily for the Owner's occupancy, it should be made to fit his tastes and personal requirements as closely as it is possible to do so; whereas, if it is to be constructed with the idea of investment, it should be a house of thoroughly average character, possessing few personal peculiarities. Like the ready-made shoe, it should be made on as general a "last" as possible. But if a man wants a successful home for himself and family, he ought to make his domestic requirements paramount, and let all other considerations as to real-estate investment, etc., take care of themselves.

We believe the judicious reader will recognize the force of this advice. It is certainly fundamental. A "home" is one thing; a real-estate investment another. Directness of purpose is an essential of success. If we appeal to other objects of human effort, the case is clear enough, but it is equally "the essence of the matter" in the building of a home. An automobile constructed with the idea that it may serve at some time as a "rig," would undoubtedly prove a vehicular hybrid, as unsatisfactory to the horseman as to the mechanician. The purpose of this volume is to assist in the production of a successful home, and the first counsel we must give to the reader is:

Before building make up your mind absolutely that you need and desire your own home.

We assume it is superfluous to indicate here the multitude of good reasons that may be adduced in support of the recommendation: Own your own home. The specification, in some particulars, no doubt would smack somewhat of moralizing, and in these pages it is enough if we stick to what are usually deemed "practical" considerations; but as a matter of fact there are certain very wholesome effects in the ownership of a home-independence, stability of foothold, social status, and the like-that are in no wise negligible, and must most certainly be counted among the solid assets of life. Keeping, however, to the more tangible side of the enterprise, it cannot be amiss to point out that the intense nervous strain of American life demands the compensation of the maximum amount of healthful rest and recreation; the overcrowding of large cities is increasing and necessitating a new solution of the problem of living; and finally, healthy family life in the densely populated centers, except for the wealthy, is becoming more and more difficult. Each of these considerations is a strong recommendation for the building or ownership of one's own home, it being taken for granted that ownership, under prevalent conditions, implies for the man of moderate means existence in the country, the suburbs, or the smaller cities that are in reality aggrandized suburban places.

Many good people, undoubtedly, are not predisposed to what they term "country life," except during the short summer vacation. Part of this prejudice at least is based upon reminiscence, upon a sort of traditional "country" that no longer exists in proximity to the larger cities. The isolated house, the muddy, unlit roads, the utter lack of modern conveniences—these elements of an old-time reality are more easily discoverable to-day in the memories of middle-aged

TO BUILD OR NOT TO BUILD

men than within the region of "commutation." Changes slip in so quietly that it requires a conscious effort to recognize that the suburban country has been perhaps even more improved in the last twenty years than have our metropolitan areas. The American people have been making enormous investments in the development of "Suburbia." Local transportation facilities of the big trunk lines have been vastly increased. The trolley has been carried, one might almost say, into the country lanes. A big bonded debt has been created by townships, cities, and states to pay for the macadamizing of roads. The electric light and telephone have been pushed out even into the farm lands. Water, gas supply, and sewers have been constructed and thrown out everywhere, like a skirmishing force, in advance of the oncoming army of builders. There is, indeed, on a fair appraisal, very little difference to-day, in the matter of "modern conveniences," between life in the city and life in a well-developed suburb. The theaters and big stores are, no doubt, missing, but the former are within comparatively easy reach, and the latter make "daily deliveries." And then, even though suburban existence may lack certain of the advantages of city life, it offers its own peculiar compensations. However, this is not an essay on the suburbs; we touch upon the matter only to enforce upon the Owner about to build the necessity of clearly weighing in his mind all the "pros" and "cons" of the step he intends taking. There are few things given to anyone that are not accompanied by disadvantages. Nothing is more likely to defeat the purpose of the Owner than to embark upon his venture without having carefully weighed in advance, on his own behalf and on behalf of each member of his family, the advantages and the inevitable disadvantages, the qualities and the defects of his undertaking. A great many people leap, then leave it to experience to show them into what they have

leapt. And so there arises much belated lamentation that the home was not built nearer to the city or farther from it, on high land instead of low land, in the valley instead of on the hills, near water instead of amid the trees, and so on. It is the Owner's most important business to think very carefully about these matters. Usually he gives them at best a superficial examination and devotes his keenest attention to the "style" in which his house shall be designed, the nature of its construction, or some other such matter, which he is utterly incompetent to decide. He will not be scrupulous in playing the part of Owner in the play; he prefers to impersonate the Architect or the Builder, and thereby produces the comedies and tragedies of homemaking.

A great many questions must arise and be answered antecedent to the work of actually designing the home. These are strictly the Owner's affair. He must decide in singleness of heart that he wants a home, that it shall be his, made for himself by himself. He must calculate closely the nature and extent of the accommodation his house must afford. He must select the site for his building, so that it shall strike the best balance for him between frequently conflicting requirements, such as cost, proximity to city, transportation service, character and size of lot, and, finally, he must calculate the amount of money his finances warrant him in These details should be gone over again and again. Building a house is one of the events of a lifetime, and it is a good rule in all real-estate transactions to build slowly, for it is easier to buy than to sell. We shall have something further to say on some of these points, but here we are pleading with the Owner to start his enterprise with a really clear, well-defined decision to build.

CHAPTER II

CHOOSING THE SITE

In the previous chapter we have tried to make the reader appreciate the force of the first and great commandment to those about to build:

LAW I.—Let the initial step and all subsequent steps of your building operation be determined by a clearly conceived decision, having for its object a definite result.

Now, when the Owner has decided to build, has examined, sifted, balanced all objections and difficulties, and has deliberately determined that the question, "Why build?" should be answered by him in the affirmative, the next question is the choice of a site. But before discussing this subject, we must lay down two other laws for building successfully, which now for the first time become operative.

Law II.—Each factor in the production of a home—there are three, Owner, Architect, Builder—should thoroughly perform his own part of the task, but no more.

LAW III.—No part of a building undertaking should be considered or determined by Owner, Architect, or Builder (each within his own province) as a single matter, apart from all the other related elements of the enterprise.

The importance of Laws I and II we cannot overrate; indeed, their infringement is the occasion of perhaps a greater number of failures than any other two causes that we can mention. How many persons, for instance, purchase a site that is in itself very charming, but is ill suited to the

daily requirements of the Owner's life. How often we see a class or a style of house erected in a locality or on a site that is entirely inappropriate for it. These incongruities, and others like them, are usually to be traced to the fact that there is too much Owner in the architecture and not enough Owner in the site. The Owner has not performed his function thoroughly, leaving to Architect and Builder the equally thorough performance of theirs. A great gain would be made for all concerned could the Owner be induced "to attend to his own business," and, having carefully selected a suitable site, accurately measured his requirements and finances—in other words, performed all the acts that pertain to his function-pass the problem on to the Architect, leaving it to him to supply his particular element of the enterprise, in conformity with the general law.-No part of a building undertaking should be performed as a single matter, unrelated to all the other elements of the enterprise.

We should, perhaps, be going too far afield were we here to undertake to show that nothing in itself, by and for itself, is excellent. When we speak of the qualities of anything we tacitly refer to relationships and correspondences understood. There is no such thing as a good house, considered apart from all its purposes. It is the satisfactory fulfillment of all its purposes that makes a house admirable. When the average layman decides to "build him a house" he usually starts with a number of incoherent impressions of buildings that he has seen at one time and another. He believes he has a fairly clear picture in his mind of what he wants; in reality it is a very foggy image, a mere piece of patchwork. It is not anything that is at all architectural. If called upon to express it in exact terms or delineate it precisely on paper, he would discover how vaporous his notions are. It is like the knowledge possessed by many people-inexact. We all think we know a great many things until we are strictly ex-

CHOOSING THE SITE

amined. Now, these architectural notions or pictures of the Owner's seem to him to be the most important of all things; they are not. They mislead him into attempting more or less to select a site as though it were a frame for a picture. The authors of this book will not have succeeded in their purpose unless they succeed in inducing him to put these pictures aside, and address himself to the selection of a site for his home upon much more prosaic considerations. The following are the prime factors which should determine the selection of a site, and the Owner should consider them carefully, one by one:

FACTOR I.—PROXIMITY TO BUSINESS OR EMPLOYMENT:

With this must be included transit facilities. The average business man cannot very well afford to locate himself permanently at a greater distance from the headquarters of his vocation than can be traversed within an hour's time. Assuming this, he has an approximate radius of twenty to twenty-five miles within which to pitch his tent. The selection of a site for the home at any greater distance is not to be recommended. More than one hour's travel night and morning entails too severe a strain, not only upon the traveler himself, but upon the domestic arrangements, which must be regulated to conform to his requirements.

FACTOR II.—PROXIMITY TO TRANSIT FACILITIES, STORES, SCHOOLS, CHURCHES:

In one particular, at least, Factor II is closely related to Factor I. The one hour spoken of above is, of course, computed from the home to the office. Therefore, the farther the site is from the railroad station, the nearer the railroad station must be to the city. As

a matter of practice, it is inadvisable to locate one's house beyond a fifteen-minute walk or ride of the station. In the case of walking, this is equivalent to about three-quarters of a mile. In the case of a trolley service, the distance would be a mile and a half or more, depending upon local conditions. The former applies to suburban villages with a population of five thousand or under; the latter to the larger suburban towns and provincial cities. In suburban villages, as defined above, land situated farther from the station than fifteen minutes' walk is usually farm land, or very nearly such. "Modern improvements" are rarely carried out farther from the center. Land of this character is beyond the purview of the present book.

FACTOR III.—Public Utilities:

One cannot be dogmatic on this point, but the Owner is strongly recommended not to locate his home on any site that is not supplied with a public water service, gas or electricity, sewers, macadamized or built roadways, and permanent sidewalks. He should also take the precaution to see that the streets have been legally laid out, and are not the result of purely private geography.

FACTOR IV.—HEALTHINESS OF THE LOCALITY:

This is a difficult matter to determine in any scientific manner. It is hard to obtain reliable facts. Old residents are prone to act as in the fable the fox who had lost his tail. Real-estate agents are naturally biased, if not perverted, by the desire to consummate a sale. There are, however, one or two points that the Owner can decide for himself. Perhaps the most important is to ascertain whether the lot in view is low-lying and

CHOOSING THE SITE

subject to poor drainage. To determine this, pits may be sunk and pains taken to inspect the land under the most disadvantageous conditions—during winter time, in the fall, or spring, after long-continued rain. Moreover, one can easily determine whether the ground is cold and clayey (bad) and gauge the amount of sunshine and light that is the inevitable possession of the lot. In this conclusion the Owner should assume that all the land lying beyond the property he intends to acquire is completely built up or occupied.

FACTOR V.—THE GENERAL CHARACTER OF THE NEIGHBOR-HOOD AND THE NEIGHBORS:

Much of this factor can be decided by the eye and by a few judicious inquiries. The directory and a knowledge of the pursuits of the residents will add to the information. But there is really no way of deciding the matter for oneself with certainty except by living in the locality for a time, and this extreme course is strongly recommended. The old saying is, "We don't know people until we have summered and wintered with them." This is a literal matter of fact in dealing with a locality. The business of selecting a site for a home is serious enough to warrant any man in testing his selection by a year's preliminary residence. People's tastes and temperaments count for too much in successful home building to be disregarded. Incongruous or inhospitable surroundings are fatal.

FACTOR VI.—RELATION OF VALUE OF LOT TO COST OF HOUSE:

One of the most grievous mistakes that the Owner can make is to build a house the cost of which is out of

proportion to the value of the land upon which he locates it. In this matter of proportion are involved a number of the foregoing factors that, at first sight, may seem to be entirely irrelevant. It is easy to see that the higher the cost of the land the better, as a rule, will be the character of future building operations, and the higher, in a social sense, will be the tone of life of one's neighbors. This is particularly true when the Owner happens to be one of the first invaders of a locality. It is, as a rule, better to strain one's resources as to the price one pays for a lot than to strain them as to the cost of the house. As a matter of fact, the one should be strictly proportional to the other. It is, of course, difficult to state this proportion mathematically, but one is very safe in assuming that a house that costs to build six or seven thousand dollars should not be erected on a lot that costs less than fifteen to seventeen dollars a front foot. When we say this we have in mind lots of an average size, with all permanent modern improvements, in a town of about five thousand inhabitants. In larger communities the price given for the land must be increased, and the proportion, therefore, altered. Speaking of cities, in contradistinction to purely suburban villages or towns, Mr. Richard M. Hurd gives the following table, which is more valuable here as an illustration of a principle than for practical calculations in building country homes:

CHOOSING THE SITE

On LAND VALUED PER FRONT FOOT.	Average frontage of lot.	Construction may be.	RESIDENCES MAY COST.			
			Cents cubic f	per oot.	Total	l.
\$5 in smaller cities	25 30 40 40 50 60–100 60–100	Brick or stone block Brick or stone block Fireproof		7 8 9 9 10 12 9 15 18 9 15 18 9 18 9 18 9 18 9 18 9 18 9 18 9 18 9 18 9 18 18 18 18 18 18 18 18 18 18	2,500 to 3,000 to 4,500 to 6,000 to 10,000 to 12,000 to 15,000 to 6,000 to 10,000 to	
7,500-9,000 in largest cities		Fireproof	50 u		500,000 up	

^{*}The cost of labor and materials has increased so much of late that these figures are perhaps 25% too low.

This author, too, takes care to point out the advantage of an even division of investment between land and building. He says: "As against the certain physical depreciation of the building there may be an appreciation of the land to offset it." And he estimates that the physical depreciation of buildings if kept in repair is as follows:

CLASS OF BUILDING.	* Life in years.	Annual depreciation.	
Cheap frame tenements Ordinary frame residences. Cheap brick tenements and office buildings. Cheap brick or stone residences. Better class frame residences. Better class brick and stone residences. Good brick and stone office buildings. Steel skeleton buildings.	25 to 30 25 to 30 35 to 50 35 to 50 50 to 75 75 to 100	5 to 10 % 2 to 3 % 2 to 3 % 1 to 2 % 1 to 2 % 1 to 1 1 % 1 %	

^{*}We assume Mr. Hurd means effective financial life, for, physically, the life of buildings is longer than his figures indicate.

FACTOR VII.—Size of Lot:

This is a factor that is naturally subject to many qualifications. Speaking of purely suburban places, we are of the opinion that the Owner should avoid small lots. Twenty-five-foot lots in the country are an abomination; the choice of anything less than sixty feet is questionable; a seventy-five-foot lot is only just tolerable; if the Owner can afford a one-hundred or one-hundred-and-fifty foot frontage, all the better. Even then his surroundings are only just ample enough to give him some little space for lawns and foliage, and some security against the encroachment of neighbors.

FACTOR VIII.—CHOICE OF TOWN:

We do not here refer to any geographical selection, nor to a choice between towns seacoast, inland, hilly, or lowlying, big, or little, or otherwise. We wish to impress upon the reader the advantages of locating himself in the midst of a growing and advancing community, no matter what its size may be. Some people advise, "Live in a decaying, do business in an advancing, No doubt there is a certain quiet and even melancholy enjoyment in the antiquated atmosphere of a town that has "seen its best days" or is "just holding its own" with perhaps a picturesque simplicity, as though it lay beyond the vicissitudes of time and the energetic influences of modern life. The choice, however, that would select such a place for an abode is too entirely personal and temperamental to be dealt with in general terms. We are speaking here of the average man and his requirements, and for the average man, unquestionably, the proper location is the growing community. In the United States this is not difficult to dis-

CHOOSING THE SITE

cover; indeed, the difficulty lies in the other direction. Our statistics nearly all run upward, and by means of them it is comparatively easy for any judicious Owner to be waywise.

Finally, as a sort of parting advice, keep near to the lines of transit; buy slowly (it is easier to buy than to sell); study your situation carefully; clearly formulate for yourself what is the object or end for which you are buying property; and remember, it is impossible to conjoin all qualities and advantages in any one location. Your ultimate selection must be something of a compromise. Speaking to the young man, we should say: Don't fear to go into debt reasonably for a home, provided you have some little means accumulated and are healthy, industrious, and fixed in your purposes and tastes.

One word more to the purchaser: Deal through a reputable real-estate broker. Obtain, wherever possible, the insurance of a title-guarantee company. In making your contract for purchase, avoid all general conditions, such as "subject to any of the facts as shown in a survey" or "subject to covenants or restrictions contained in prior deeds." Insist upon seeing the specified covenant or restriction, and then, if agreeable to you, cause it to be inserted in the contract.

CHAPTER III

"STYLE" AND THE OWNER'S REQUIREMENTS IN THE HOME

UR Owner, so far, has decided that it is worth his while (if, indeed, it does not "pay") to build his own home and has proceeded to select his site. He has to deal now with a third element, namely, the nature of the house he requires. We use the word "nature" advisedly because, in our judgment, it is not permissible for the Owner to go any further than to formulate in very general terms the kind of house he prefers. Indeed, strictly speaking, he should limit himself to a clear, complete specification of his requirements, which, naturally, will be determined by the size of his family, the character of his domestic life, the vocations and avocations of its members, including, of course, himself. It is not the function of the Owner to say that his home shall be an Italian villa, an Elizabethan mansion, "something Old Colonial," or, even, a Queen Anne cottage. His bill of particulars must be confined, so to speak, to his "domesticities." He must be convinced that it may very well be that his real requirements will not fit at all with the Italian villa or any other preference of his. To impose upon the Architect in the beginning, say a "halftimbered" style of house, and, at the same time, demand a complete solution of a given schedule of utilitarian necessities is, in a sense, similar to commissioning him to design a building of well-defined type upon a set of abandoned foundations intended primarily for something entirely different. We wish we did not feel compelled to speak as ex-

tremists upon this point, for it would be so much more "popular." We are convinced, however, that the best thing an Owner can do is to trust his Architect exactly as he trusts his doctor or his lawyer. The Owner's preferences for this or that kind of a building will inevitably count for something with an intelligent and reasonable architect, but, after all, it is the foot that has to be fitted with the shoe, and all styles of shoes will not fit every kind of foot.

Usually the question, "What kind of house shall I build?" is answered by the Owner in this wise: "I want a house like Smith's, but I want added such and such features, borrowed from Jones's house." Living by the force of another's example may be very well in the field of morals, but in artistic matters it has certainly the defect of weakness. The Owner should want His Own house, not a friend's or a neighbor's. Each family has its own mode of living, its own particular circle of friends, its own special requirements. No doubt we are all fairly well regimented these days. We are all coerced more or less by customs and social usages. Nevertheless, the value of different elements is not exactly the same in all families, and it is just these differences of values that should receive the fullest expression and be made the most of in the designing of homes. In some families it is the purely domestic element that is paramount, in others the social. Elsewhere the chief interest centers, perhaps, around the library or is devoted to music, to sports or outdoor amusements, and so on. Now, if a home is to be expressive of anything, it should be of the lives of those who live in it. It is for this reason we condemn the ready-made house and the second-hand home. The adjustment between them and their occupants' modes of life can be but a rough adjustment, produced not by rational compromises but by the suppression of the very elements that should be the inspiration of the Architect

and potent sources of character and individuality in the design.

A similar line of reason prohibits the Owner living in the houses of other periods than his own. It is strange that the incongruity of purposely imitating other people's houses does not strike us all forcibly, particularly when this imitation is done in the name of Art. One might conclude, from some of our twentieth-century homes, that some of our New York financial men or Western manufacturers were, artistically, the legatees of Sixteenth Century Italian cardinals and aristocrats. It is difficult to believe that these people are not "connected" in any way by birth, association, temperament, or history with mediæval knights, Louis XIV seigneurs, Georgian squires, or Southern colonial planters. The question should arise to some one: If the drab Modern may be housed in far-off imitations of some ancient reality, why would not his tailor be justified in marching him to business in a cardinal's robe, or silken doublet and hose? If we apply the connoted method of production to any other art or science how ridiculous it would seem to everyone! Think of the engineer copying some previous structure almost rivet for rivet! Think of a naval architect deciding that the Spanish Galleon of 1550 is preferable to a Dutch Merchantman of 1650 for modern traffic in the West Indian trade! What would we say of an author who should set to work deliberately to write a novel with a Colonel Newcome in it, a Little Dorrit, or a Micawber? The purely imitative or copy-book production is intolerable, even to the multitude, in every art except architecture, and, therefore, no one smiles at Italian villas in New Jersey, sunken gardens in Long Island, Elizabethan and Georgian villas around Chicago or in the suburban regions of Philadelphia or Boston.

The Owner should not even suggest to an architect his

hankering after these false gods, these sham antiquities. Indeed, if any architect should point out to him the desirability of his possessing something "Old Colonial," Queen Anne, or Elizabethan, let him know by that token that he is certainly not dealing with a true artist, although he may be in treaty with a nominal architect. Let us frankly admit that the Owner will find it extremely difficult to discover an architect who will undertake to *produce* and not reproduce a design for him. Architecture to-day is tainted by factory processes. It is very much simpler to imitate and copy and talk about Art than to get down to the laborious task of making a real design.

Of course the foregoing will not be read by the Owner as a plea for what is sometimes called "novelty in architecture." A really meritorious novelty is a rare bird in architecture. Just as the engineer works with old engineering principles, time-tested material, and well-established methods, so must an architect work with old elements. An author does not create a new alphabet or a new language in order to write a new book, nor does he on the other hand imitate. There will be steep roofs and flat roofs, columns and arches, half-timbered work, stucco and brick, color and light and shade for the Architect to work with, long after every present-known style has vanished from the earth. It is out of these and similar elements, not out of copy books, that the great builders of the past wrought their architecture. There is no reason to-day why these materials, good enough for our predecessors, are not good enough also for us. require is to use them with the same sincerity. The Owner can contribute immensely to the cause of architecture by freeing the Architect from the preliminary requests to do "something" like this or that. Every Owner of even a little suburban house may become, in a measure, by sticking to this rule, a real patron and promoter of Art.

It must not be understood, however, that because we condemn the imitation of older buildings we wish to see the great historical "styles" banished or, like queer extinct animals, removed permanently to the great museum of the past, where to the curious are exhibited the outworn relics of man's endeavor. There is a sense in which the study, not the imitation, of previous buildings is thoroughly legitimate. the imitation, of previous buildings is thoroughly legitimate. There is a sense even in which the most original of architects will not succeed, if his work is legitimate, in emancipating himself from the past. Every "style" and type of building, it will be easy to understand, embodies a certain amount of reality and experience. In a greater or lesser degree each was a solution of certain difficulties, and a satisfaction, more or less complete, of certain wants. Some, indeed, may be regarded as complete. Now a complete solution is a final solution. Suppose for a moment that a race of highly intelligent Indians should devote themselves, generation after generation, to the perfection of the wigwam, in a given locality, under stated conditions. Suppose, moreover, that they should completely solve the problem attacked. The wigwam thus devised, in so far as it contained elements of permanent experience, elements that every other Indian builder, to the end of time, would have to produce, would be eternally true. If the "style" were lost, succeeding generations, taught again by experience, would be compelled to arrive at more or less the same result as that attained by their predecessors. Thus, to speak by parallel, were the their predecessors. Thus, to speak by parallel, were the world to forget its arithmetic it would, in the course of time, recreate the multiplication table, and this later multiplication table would be a precise facsimile of the older.

In all real architectural "styles" there are certain "final expressions," certain permanently legitimate forms, certain fixed principles, certain rational and æsthetic elements that are of the very constitution of things. We shall have to

change the human mind and human conditions before they cease to be beautiful and sound. Art, no matter what else it may be, is certainly not all mere opinion. It has been said that give the same facts to everybody, everybody would think alike. So, given the same architectural problem and the same capacity to solve it perfectly, all similar architectural problems will be solved alike.

If we have made this clear to the Owner he will understand why we tell him in one breath that he must not imitate past "styles," and with our next words assert that past "styles" must not, and, indeed, cannot be disregarded with impunity. There have been certain periods in the world's history when men have addressed themselves assiduously to the solution of certain architectural problems. The Egyptian architect worked for centuries upon his tombs and temples; the Greek upon his theaters and temples; the Roman upon his baths and forums; the architect of the Middle Ages upon his churches and cathedrals; the men of the Renaissance upon their palaces and places of worship; the Englishmen of a somewhat later day upon their baronial halls and their more modest homes. In each of these cases certain results were attained which were, within limits, if not perfect, at least of rare excellence. Where we to-day have precisely the same problems we cannot do better than accept so much as is inevitable in their results. After all, we shall not accept a great deal, because both conditions and men alter much with the passing of each generation, and we can find enough to inspire our "originality" in seeking to give complete expression to the altered mood and the varied conditions of our own day without struggling to depart from the fundamental achievements of past architecture.

What do we mean when we say a building is of a certain "Style"? Professor Hamlin, in his "History of Architecture," defines and describes style as follows:

"Style is quality; the 'historic styles' are phases of development. Style is character expressive of definite conceptions, as of grandeur, gayety, or solemnity. An historic style is the particular phase, the characteristic manner of design, which prevails at a given time and place. It is not the result of mere accident or caprice, but of intellectual, moral, social, religious, and even political conditions. Gothic architecture could never have been invented by the Greeks, nor could the Egyptian styles have grown up in Italy. Each style is based upon some fundamental principle springing from its surrounding civilization, which undergoes successive developments until it either reaches perfection or its possibilities are exhausted, after which a period of decline usually sets in. This is followed either by a reaction and the introduction of some radically new principle leading to the evolution of a new style, or by the final decay and extinc-tion of the civilization and its replacement by some younger and more virile element. Thus the history of architecture appears as a connected chain of causes and effects succeeding each other without break, each style growing out of that which preceded it, or springing out of the fecundating contact of a higher with a lower civilization. To study architectural styles is, therefore, to study a branch of the history of civilization." Style is, therefore, intimately connected with our life. It is not a thing which is created on the spur of the moment or drawn at random from the imagination. It requires a long time to develop and is noticeable only after a considerable period of time has elapsed and many stages have been completed. From the civilization of Egypt to the present age of Invention and Commerce each period has produced a Style of architecture which faithfully reflects the most pronounced tendencies of that epoch. Egypt and Greece had their temples, and Rome its pompous public buildings. The advent of Christianity brought with it the

beginning of church building. The Middle Ages introduced the fortified castle and the Gothic style, and modern times are developing the place of business and the home. It is with the home that we are at present concerned. It was in England and to some extent in the Low Countries that the suburban home had its inception. Roughly speaking, we might place its beginning in the middle of the sixteenth century, coincident with the reign of Elizabeth. It is at this time that the tendency to real home life becomes noticeable. Mr. Green, in his "Short History of the English People," remarks in a chapter on The England of Elizabeth:

"It is from this period indeed that we can first date the rise of a conception which seems to us now as a peculiarly English one, the conception of domestic comfort. The chimney corner, so closely associated with family life, came into existence with the general introduction of chimneys, a feature rare in ordinary houses at the beginning of this reign. Pillows, which had before been despised by the farmer and the trader as fit only 'for women in childbed,' were now in general use. Carpets superseded the filthy flooring of rushes. The lofty houses of the wealthier merchants, their parapeted fronts and costly wainscoting, their cumbrous but elaborate beds, their carved staircases, their quaintly figured gables, not only contrasted with the squalor which had till then characterized English towns, but marked the rise of a new middle class, which was to play its part in later history. A transformation of an even more striking kind proclaimed the extinction of the feudal character of the noblesse. Gloomy walls and serried battlements disappeared from the dwellings of the gentry. The strength of the mediæval fortress gave way to the pomp and grace of the Elizabethan Hall. Knole, Longleat, Burleigh and Hatfield, Hardwick and Audley End, are familiar instances of the social as well as architectural change which covered Eng-

land with buildings where the thought of defense was abandoned for that of domestic comfort and refinement. still gaze with pleasure on their picturesque line of gables, their fretted fronts, their gilded turrets and fanciful vanes, their castellated gateways, the jutting oriels from which the great noble looked down on his new Italian garden, on its stately terraces and broad flights of steps, its vases and fountains, its quaint mazes, its formal walks, its lines of yews cut into grotesque shapes in hopeless rivalry of the cypress avenues of the South. The Italian refinement of life, which told on pleasaunce and garden, told on the remodeling of the house within, raised the principal apartments to an upper floor—a change to which we owe the grand staircases of the time—surrounded the quiet courts by long 'galleries of the presence,' crowned the rude hearth with huge chimney-pieces adorned with fauns and cupids, with quaintly interlaced monograms and fantastic arabesques, hung tapestries on the walls, and crowded each chamber with quaintly carved chairs and costly cabinets. The life of the Middle Ages concentrated itself in the vast castle hall, where the baron looked from his upper dais on the retainers who gathered at his board. But the great households were fast breaking up, and the whole feudal economy disappeared when the lord of the household withdrew with his family into his 'Parlour' or 'withdrawing room,' and left the hall to his dependents. The prodigal use of glass became a marked feature in the domestic architecture of the time, and one whose influence on the general health of the people can hardly be overrated. Long lines of windows stretched over the fronts of the new manor halls. Every merchant's house had its oriel. 'You shall have sometimes,' Lord Bacon grumbled, 'your houses so full of glass that we cannot tell where to come to be out of the sun or the cold.'"

It is natural, therefore, that we should look chiefly to

England for the prototype of our American suburban home. As a matter of fact, this is precisely what we have done. We see, accordingly, in our American suburban houses Elizabethan, Jacobean, Georgian, and Queen Anne styles adapted as nearly as the conditions will permit.

It is not slavish copying that we have reference to. The type of suburban-house architecture was evolved in Great Britain in response to a real demand, which exists to-day in the United States as it did in England then. It is not unreasonable, nor does it imply any want of "originality," therefore, to adopt the solution of the English house as a basis. No doubt, if we were to absolutely discard every suburban house that was ever done abroad and start right from the beginning to work out our own type or style we should, after passing through the same stages and transitions, arrive at something like the result which we are enabled, by adoption and adaptation, to attain without pretending to any originality. Having accepted this tradition as we do the rules of arithmetic, we continue to discover and create new conditions. This is the development of Style that is to be desired in this country. We have it in the very best of our suburban houses; it promises a national style which will become the more apparent as time allows it opportunity to manifest itself.

We must carry this idea of ours a little further in order to give it its full application. The Owner must be warned of the fact that in current architecture there is not only a great deal of direct imitation of by-gone "styles," but the planning of our houses is, in a very great measure, influenced by certain requirements that are quite as much traditional as actual. It is well to remember that modern house plans have been evolved from the plans of the big aristocratic houses of the past. These big aristocratic houses were planned to meet requirements that were, at the time,

very reasonable. The lordly owner of the mansion or château had his requirements, his wife had hers. There were many guests to entertain, a host of servants or retainers to provide for. The family lived en fête. Drawingrooms, boudoirs, picture galleries, were a necessary part of the stage setting of the aristocratic life of the day. But to-day is another day. We do not, perhaps, recognize how much of this past, of which we have been speaking, has been transplanted in a dwarfed and impoverished state into our small suburban houses. The good suburbanite feels that the plan of his house is inadequate unless it provides for him a certain number of apartments—a vestibule, a hall, a drawingroom, dining room, den, library, butler's pantry, kitchen, laundry, etc. The house measures perhaps thirty by fifty, but no matter how tight the squeeze, the Owner demands that the entire category of rooms shall, somehow, be pressed into the plan. As a result, the vestibule is too small, the hall, with its little fireplace, is a mere draughty piece of show. The drawing-room impresses the visitor as a cold, stiff apartment dedicated to snobbery. The dining room is really insufficient for the family. The den is little better than a cell, and the library is merely an exposition of barren humor. The butler's pantry would be an absurdity if a real well-fed butler had to occupy it, and the kitchen is only a torture V chamber for the lady of the house and her domestic. Why must the Owner possess so many little boxlike rooms? Are they really necessary to his comfort? If he will stop to think for a moment he will reach the conclusion with himself that he demands these requirements solely because his neighbors have them, and his neighbors have them because they, in turn, imitated somebody else's house, who imitated somebody else's house, and so on backward. But, as we recede into the past, we witness these apartments becoming more spacious, more in consonance with the actual daily lives

of the householders. The modern house plan has really not been developed from the past; rather it is the past compressed, pauperized, perverted-little tabloid plans of the past. In a large house of to-day, maybe, there is plenty of reason and space for numerous apartments, each devoted to a special use, but in the ordinary house this certainly is not the case. A majority of owners would be much better served by dividing their limited floor area into two or three rooms, each devoted to a group of related uses. For instance, would not one big living room, well lighted, amply ventilated, reasonably decorated and furnished, serve better as the general living or assembly room than the customary three or four constricted compartments? Such an assembly room could be built and furnished for use. The family could gather around a real fireplace, there would be space for substantial furniture, there could be a sufficient place for the piano, and in a large alcove or bay, connected with the serving room and kitchen, there could easily be provided a suitable recess for an ample dining table. A very small room adjacent to the entrance would serve for formal visitors and the calls of strangers (Figs. 57, 60). A scheme of this kind really fits more closely to the actual life of our people than the present scheme, which allots to the casual caller the major part of the floor space and sequesters the family and the friend of the family to a relatively much smaller room. No doubt most owners would accept a plan based on the real facts of their life if they would but consider their own preferences, but, in a sense, we are all snobs, and would rather make a brave show before the world than study our own comfort behind the domestic curtain. and there, however, people are breaking away from the old traditions, and the big single-room plan is not so unusual as it used to be. A rational plan is bound to be developed.

It will be understood, of course, that we are not directly

advocating any plan as a sort of "universal panacea." The foregoing is intended merely by way of illustration. We wish to make clear thereby the principle which should guide the Owner when deciding the kind of a house he wants. It is the function of the Architect and the Architect alone to actually lay out the plan of the house. The Architect, however, cannot do his best work so long as he is even tacitly bound by a false or illogical set of conditions implied in the commission he receives from the Owner.

Note.—The reader must distinctly understand that many of the illustrations that appear in these pages are given merely for their value as suggestions. They have still another value which should not be overlooked. The appreciation of good forms and tasteful arrangements is in a large measure a matter of experience and instruction. By a careful study of the illustrations in this book the reader will perceive, in a general way, the kind of house the authors are striving to induce him to obtain. It should be remembered that the low artistic value of the ordinary house is not due to modesty of expenditures, but to the fact that money is spent to obtain cheap and tawdry results. The same sum expended by a person of taste would produce not as costly an effect as is exhibited in some of our illustrations, but one that would possess an equal artistic character.



FIG. 2.—Colonial type of bungalow. The architectural treatment is simple and veracious, and with a few modifications the design can easily be adapted for the simplest class of suburban houses. A second floor could easily be arranged for. For conditions that prevail in the Eastern and Middle States a cellar would be necessary. In recent years the bungalow has apparently become popular in the suburbs, and the following illustrations are given for the purpose of illustrating certain general effects that could be obtained at a very moderate outlay.





Fig. 3.—This is an excellent example of simple treatment, but reminiscent of some of the old-fashioned smaller houses that are to be found in England.



Frg. 4.—This design is thoroughly modern, it is not based on a study of any of the "styles." It was built in the West where "traditions" control less than they do in the East. The design is simple to the point of severity. Architectural ornamentation has been completely discarded and the building has been left to make its impression by virtue of its masses and horizontal lines. This illustration is given in order to impress the reader with the fact that it is quite feasible to obtain a satisfactory result by the simplest forms and without a quantity of details.



Fig. 5.—The modest inexpensive shingle bungalow. A house of this one-story type, it should be remarked, costs very little more than a two-story house affording the same accommodations, especially in localities where the price of ground is low.

Carrosana

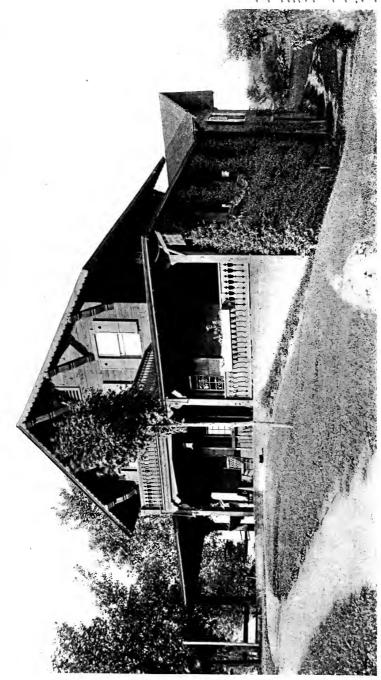


Fig. 6.—This design is based upon a study of Swiss chalets. The remarks that accompany Fig. 22 are applicable to this illustration. The reader should note the skillful manner in which the architect has taken advantage of the irregularity of the ground in the plan and design of his building.



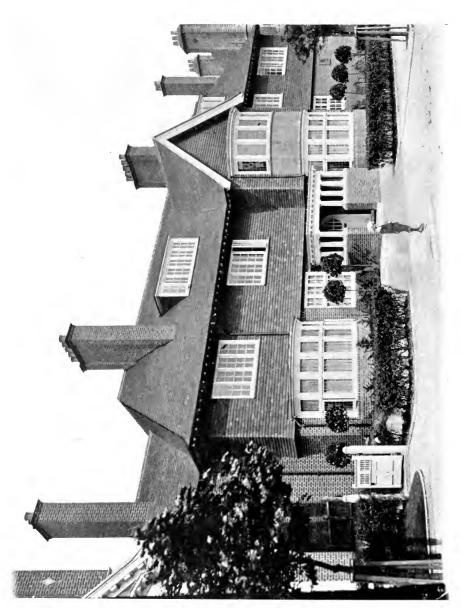




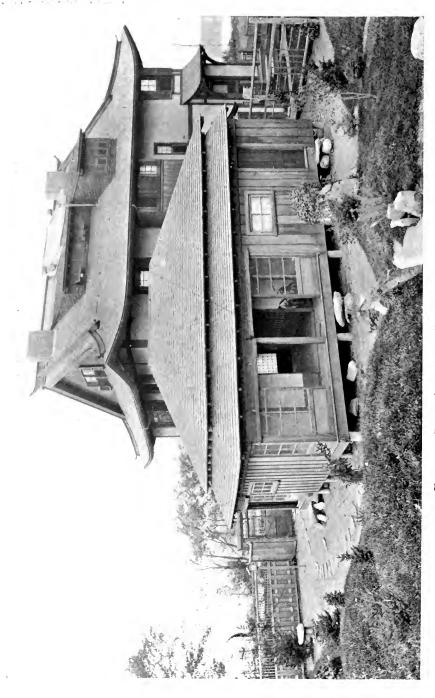


Fig. 8.—A picturesque and successful design based upon old English buildings; deserves careful study as an example of the extent to which an able architect can use his predecessors? work without imitation and yet attain an original and modern composition.

Fig. 9.—A design for a stucco or concrete exterior.



Here we have a good illustration of the legitimate use of "styles." The building is not Japanese, it is a distinctly American villa and provides exactly the accommodation that the householder needs in this country. Again we have to draw the reader's Frc. 10.—A design based upon a study of Japanese buildings. The adaptation has been very skillfully carried out. attention to the service court at the right of the building. (See Chapter VII.)



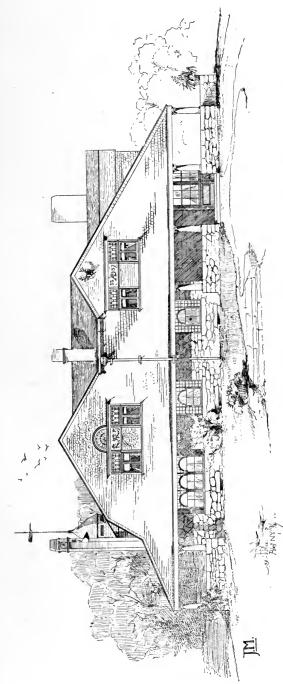


Fig. 12.—Typical American design of the best class. In judging this design it should be mentioned that it represents some of the best tendencies of American suburban architecture in its earlier development, being of the type of house which characterized the architectural beginnings of Newport, Rhode Island, and the first real American suburbs, about The characteristics of this type have been preserved, the treatment of the details modified and the type generally developed twenty years ago.

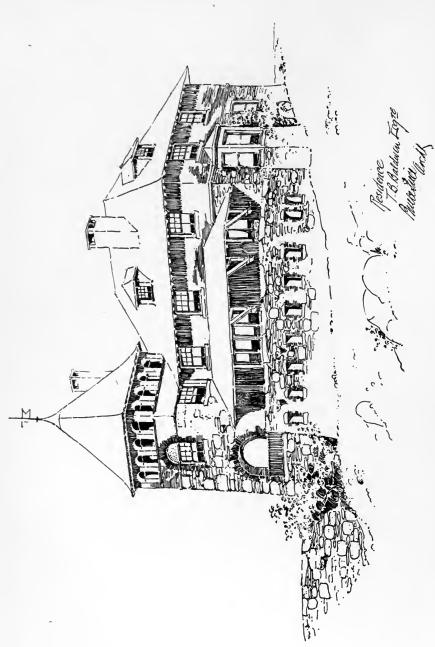


Fig. 13.—A thoroughly American design. This building and those of its class are examples of the best native quality that has been produced by American architects. The same remarks that were made of the preceding design apply in lesser degree to this one.

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Fig. 14.—Another typical American design, highly picturesque.





Fig. 15.—A simple architectural treatment of a house of moderate size. The reader should note that at the termination of the left wing the architect has provided a service court for kitchen and domestic requirements.



Fig. 16.—A design upon unconventional lines, characteristic of the Middle West in such suburbs as Evanston and Lake Forest, Illinois.

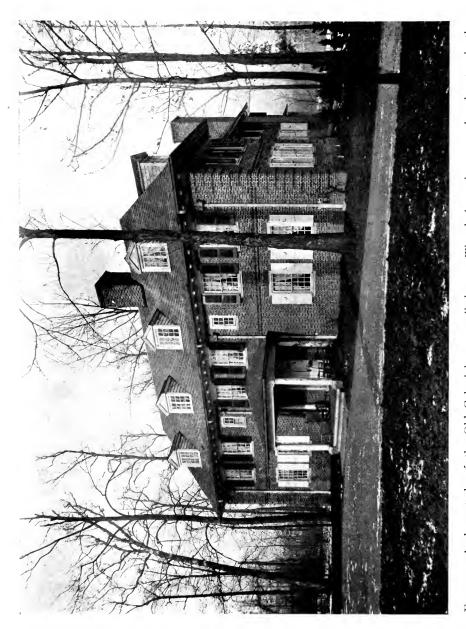


Fig. 17.—A close study of the Old Colonial, very well done. The designer has reproduced not only the form but the spirit of his original. This type of design is well represented in the Boston suburbs.



Fig. 18.—A clever fantastic design, possessing many of the "features" which, poorly done, disfigure a great number of our suburban houses. It is a good example of the medium-sized home of the Westchester, Long Island, and New Jersey towns within commuting distance of New York.

CHAPTER IV

SELECTING THE ARCHITECT

TEXT to deciding, it is desirable to build, the most important step in building the home is, without doubt, the selection of the Architect. For it is at this very point that the Owner's function ends as a free agent in the trans-When the Architect enters upon the scene, the action. Owner withdraws, if not actually from the stage, at least to a subordinate position in the rear. The authors recognize how unpalatable this proceeding is to the average Owner. It seems like expelling him from the feast precisely at the moment when the real fun is about to begin. No other counsel, however, is possible if the Owner is really to obtain a completely satisfactory result. It is to be hoped that the Owner will accept this advice in a spirit of humility and, as compensation, will be prepared to appreciate to the utmost how important to him is the task of selecting the Architect, for that is most decidedly a part of his legitimate work. Usually, the Owner is not sufficiently painstaking or scrupulous in the discharge of this important part of his personal function. He does not always go about the business with the care that he bestows upon the choice of a doctor or a lawyer, and certainly with nothing like the pains he takes in the employment of a responsible clerk or domestic. The process of reasoning that produces this indifference is difficult to understand. It cannot be that the average Owner imagines that all architects are alike, nor are we justified in supposing that there exists a general ignorance equal to

that of Speaker Cannon's, when he inquired: "What's an architect, anyway?" No doubt the Architect still continues to exist in the minds of many Owners as a species of necessary evil. This, perhaps, explains why it is that so often the Owner proceeds in a spirit of perverted prudence to select an Architect in a way just the opposite of that he would pursue were he about to do any other business act of permanent importance. Architecture, of course, is a salable commodity, but is it necessary to buy it as one might buy drygoods on a bargain counter? In selecting an Architect, the Owner is purchasing ability and experience not by any means of a common kind. It really does not do to select an Architect as one would a disengaged barber in a hair-cutting establishment. A rational choice demands a little more method. It seems almost ridiculous to be compelled to announce that the Architect should be selected for his ability, and even because of the kind of ability that he possesses. Even more ridiculous does it seem to be constrained to proceed and add that such ability demands adequate financial compensation. It is true, nevertheless, that in many instances the Architect's legitimate pay is somewhat grudgingly given. The Architect who works cheapest is held in a certain estimation, and is too often supposed to be the most likely fellow. This is all a grievous error, founded on gross misapprehension and lack of appreciation. Architect is every bit as indispensable in his field of activity as, let us say, the engineer in his. The United States Government did not select the cheapest engineers obtainable to design the Panama Canal, nor do our railway companies employ the cheapest engineers to build their bridges. It is useless to multiply examples to illustrate the absurdity of the Even the most economical business men have learned that the lowest-priced articles or services are not inevitably the cheapest. It is as necessary to consider effi-

SELECTING THE ARCHITECT

ciency as cost. In truth, the question of cost is very largely a question of efficiency. This is precisely the case with the building of a home, the success or the failure of which depends in great measure on the care and skill with which the plans have been made, and all other steps taken that antecede the selection of the material. The efficiency with which the actual work of construction is supervised and directed is also an element of prime importance.

No doubt it is not difficult to find Architects who are willing to design the Owner's house for less than the professionally established fee. But this proves nothing, save that that particular Architect is either not a very busy man or is unprofessional. The unprofessional doctor is dubbed a quack; the unprofessional Architect is in most instances not any more trustworthy. The cheaper Architect is prone not only to reduce the cost of his own services but the cost of the construction of the house, and this danger is one against which the Owner needs to be most seriously warned. Cheap materials and shoddy workmanship may perform a temporary service. It is utterly impossible for them to satisfy a permanent requirement. The inevitable outcome must be dissatisfaction, not only with the design of the house, but, more vitally, with its construction as well. In such cases the repair bill makes an early appearance in the life of the domicile. Afterwards it is a frequent and costly visitor. It soon filches every unwise saving, and continues to make its demands with the increasing insistence of a usurer during the whole lifetime of the building. There is a tendency on the part of the Owner to believe that the good Architect delights in making him spend a great deal more money than he can afford to spend, or than is really necessary. This larger outlay, it is said, the cheap Architect will dispense with. No doubt! But an experienced Architect knows better than to recommend any uneconomical reduc-

tion of cost, simply because he has had experience, and has learned positively that certain precautions must be taken, certain materials installed, if the house is to be really adequate during its natural existence. The expenditures demanded by efficiency are not dictated by an arbitrary love of spending somebody else's money.

We hope it is not necessary to add that the foregoing remarks are not intended to create the impression that the Architect who charges the highest fee is the best man to select. Some Architects, undoubtedly, put an almost prohibitive price on their services when the commission offered to them relates to a small suburban house. The fact is, such men are too busy to bother with small buildings. Their time, and the time of their office force, is wholly absorbed in the construction of more remunerative work. Very often the greater interest and closer attention which a younger and less experienced man will give to a job will more than compensate for the greater prestige of the big Architect. Indeed, we must not overlook the fact that very often the busy Architect will intrust to a subordinate the smaller work that comes to his office. After all, the question we are raising is finally one of capacity. It is incumbent upon the Owner to seek and purchase capacity. The fame and experience of an Architect is one of his guides to the qualities he is seeking. In a rough sense it is, perhaps, the most important guide he can follow. If he discards it and permits himself to be controlled by other influences, it is incumbent upon him to exercise great care and intelligence. Certainly he must not permit himself to go to the other extreme and commit the destiny of his house to the cheap man because he is cheap, or to the young man just entering the profession simply because he lacks experience, and is willing to promise results without adequate means to reasonably attain them.

SELECTING THE ARCHITECT

Another consideration of importance to the Owner in selecting an Architect is to remember that there are specialists in architecture as in medicine and law, and as, in fact, in almost all professions or trades. There are, of course, Architects whose practice embraces all kinds of structures, but even in such cases it is plainly noticeable that they design certain types of buildings more successfully than they do others. We, therefore, earnestly counsel the Owner to select an Architect who is in the habit of designing suburban houses in preference to one whose work is chiefly confined to office buildings, railroad stations, or churches.

Finally, let the Owner, in selecting an Architect, select an Architect whose work, more or less as a whole, is known to him and liked and admired by him. We know dangers lurk in this advice, but after all is said we do not think it is legitimate to ask the Owner to discard his own preferences and take his architecture as he takes his physic, in the hope that it is doing him good. We shall probably never get architecture on a sound foundation until it is founded in a generous measure upon popular preference, and until it is sanctioned by a real popular appreciation. Of course, under this ruling the Owner, if he likes bad architecture, will buy bad architecture. This cannot be averted by any counsel we may give. Perhaps the saddest thing that can be said about current architecture is not that the average quality is so poor, but that the work itself, poor as it is, does not really delight anybody. Take the case of popular music, for instance; it does not rank very high as music, but then it is popular. It does give pleasure. It does set the chords of many people vibrating. A popular art, popularly appreciated, is a profoundly significant phenomenon. It is subject to development. It may very well be the stepping-stone to better things. Like a living language, it may some day be the noble instrument of noble thoughts and emotions. The

only really dead art is the art which nobody cares for, or the art that is the affair of a few dilettanti. Let the Owner, therefore, for good or for evil, choose the Architect whose work he knows and admires. Let him learn all he possibly can about what the man has done. As far as possible let him make it a business to study his buildings, making comparisons between these buildings and the buildings of other men. If scrutiny and comparison both confirm him in his choice, let him give that Architect his commission.

There is one warning the Owner must take very seriously to heart:

When considering any Architect's work let it be the actual buildings themselves that he studies, not mere pictures of them—perspectives or photographs, particularly perspectives. To study an Architect's work in this way is very much like taking the shadow for the substance, and the old fable illustrates how much may be lost by that process.

We would like the reader to remember that in a certain very real sense no building or piece of architecture can possibly be represented by a picture of any kind whatsoever, no matter by whom the delineation is made. A picture, no doubt, conveys some information, but after careful consideration we are inclined to think that it deceives in the most subtle and most important matters. It is easy for anyone to test this. Let some one make for you a faithful drawing of, say, a house that you have not seen, belonging to one of your friends. Study the picture, then make your friend a visit. Compare the portrayal with the thing represented. Note your first impressions. How surely they will inform you of something maladjusted, something out of scale, some essential difference between your expectation and your realization! Here we have the false element in the picture,

SELECTING THE ARCHITECT

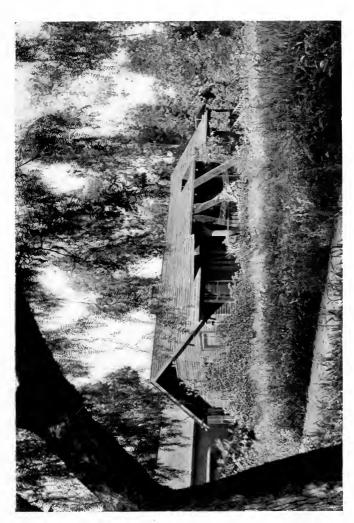
for the picture is, after all, only a sort of description, and no description ever describes. It merely stirs the imagination to work upon whatever facts lie within it.

Now when the Architect makes a perspective he is making for you only a general description of the building he expects to build for you. He cannot be any more faithful to the reality than the medium in which he works will permit. As a matter of fact, however, the Architect is rarely as faithful as the means he employs permit him to be. Like any other story-teller, he possesses a natural instinct to decorate his tale, to insist upon the salient points, and so dramatize or idealize much that is really commonplace. The Owner must allow for this exaggeration if he inspects pictures instead of buildings.

In certain of the current periodicals there appear from time to time drawings and descriptions of houses that it is said may be built for \$3,500 or \$5,000. How charming these houses look on paper, embosomed in the midst of hills, surrounded by picturesque shrubbery, with a carriage and a pair of horses at the door that cost as much as the house itself, and with the dainty lady, with her parasol, elegantly descending the front steps! Who would not like to possess such a house as that for the modest sum of \$5,000! "Castles in Spain" we have all heard about, but what shall we say of these suburban homes in Fairyland? There must be builders in that happy land who work for a song, and plumbers and steam fitters who labor for the pure delight of satisfying an art-intoxicated people. It all reminds one of those other fanciful pictures that we see on billboards and in advertisements of elegantly dressed young men who, we are told, clothe themselves in an ultra-fashionable manner at the contemptibly low cost of \$10 per suit. We know we can buy the suit for \$10, but we also know that the appearance will be utterly lacking; for, after all, shoddy and

mercerized cloth cannot be a real substitute for fine tweed and cashmere.

In most cases these fine pictures of cheap houses are lying pictures. They are intended to deceive; at any rate, they do deceive. They mislead because they give to the house a quality, a finish, a style, and character that cannot be obtained with the cheaper material and the inferior (not poor) workmanship that must necessarily be used in houses of the cheaper grade. Let the Owner, therefore, refrain from studying an Architect's work in pictures alone. Photographs may be "helps," but they can be no more. The building itself is, after all, the main thing, the only thing, and study at "first hand" will always repay the effort it demands.



Frg. 19.—An example of California bungalow which might well be used for an artist's studio.







Fig. 21.—Another example of the English half-timbered house as modified to meet American requirements.



FIG. 22.—A large bungalow with a more complicated floor plan. The building is of lumber and the treatment is idiomatic, using wood as wood, without simulating any of the forms that properly belong to other materials. The common practice of using wooden, Ionic, and other classical columns on shingle houses has very little to recommend it. The owner should study the manner in which the uprights on the veranda of this building have been designed.



Fig. 23.—An English design of a detached villa.



Fig. 24.—A simple design of strictly modern type, but the wing with its gable copied from old Spanish buildings on this continent is out of harmony with the rest of the design.



Fig. 25.—A quiet design in timber and plaster with brick foundation. This illustration shows particularly how the approach to the house can be treated with proper regard for the characteristics of the design.



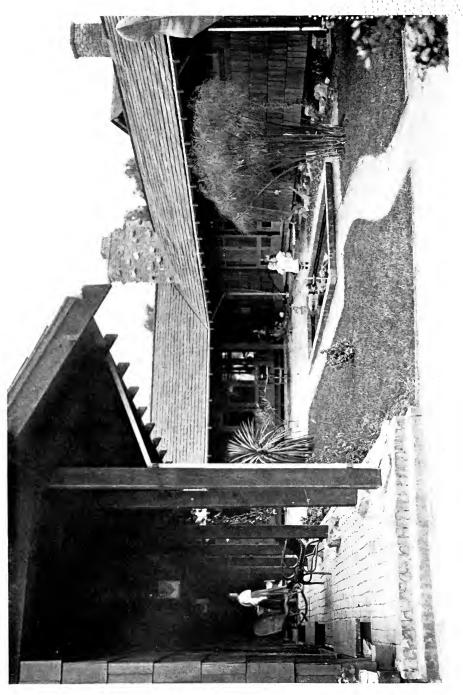




Fig. 28.—An expensive house which shows the effective use of stone in conjunction with the English halftimbered style. The veranda is especially to be recommended, both for its frank idiomatic treatment and for its position where it deprives the rooms of the minimum of sunlight. Houses of this type are frequently encountered in the Pennsylvania suburbs, where excellent stone is to be had at a moderate cost.



FIG. 29.—A good example of timbered construction conjoined with a very moderate use of brick. This building is not an imitation of any classified style. It shows what an architect may do who "follows his material" in a straightforward manner.



· Fig. 30.—A good example of a patio in a California Bungalow. This illustration is offered merely as a suggestion of the "possibilities of the case" that exist for those who are willing to depart from the traditional art of the suburban house.



Fig. 31.—An excellent modern version of an old Colonial doorway.

CHAPTER V

THE ARCHITECT

THE Owner has practically played out his part in the building of his home. He has decided that he wants certain accommodations and has intrusted the satisfaction of his requirements to an expert—the Architect—who becomes his agent or attorney in the transactions with other experts which we will discuss in following chapters. More than that, the Architect henceforth is the court of final appeal in all matters pertaining to the building. The Owner will be called in only in a secondary and advisory capacity where possible alternatives present themselves. This does not mean that the Architect, because he is now in the ascendency, has a free hand to do what he pleases. As a matter of fact, if the Owner has done his own work completely, the Architect is professionally bound, hand and foot, to solve as completely as possible a stated problem along clearly formulated lines.

The Architect has no business to build a house as though it were for himself. His entire training, if it has been thorough, has led him to accept, in a candid and completely detached frame of mind, conditions as they are imposed upon him. His life has been spent, so to speak, solving other people's difficulties. He has built churches for faiths that are not his; he has planned commercial buildings for industries with which, possibly, he has very little sympathy; he has designed hotels in which we can very well imagine he would personally never care to reside. It is so with other

people's homes. The problem to be solved is the whole thing, and to that and that alone does the trained Architect address himself. Complete sympathy with the problem, and perfect personal detachment from the result are two of the distinct characteristics of high professional skill. This mental impartiality, this intellectual subjection to the facts of the case, is not, of course, accompanied by anything that resembles artistic apathy, for the Architect must be artist as well as planner and constructor. The Architect as artist has a right to suppose that the client demands in his buildings as much of the artistic as he can possibly obtain. The Owner's choice of an Architect indicated a preference, and it is for this reason that we recommended the Owner, in the last chapter, to select the Architect whose work he most admires.

Contrary to popular belief, it is quite as difficult to design a house of modest pretensions as it is to design the palace of a millionaire. In fact, the modest house, costing from five to ten thousand dollars, may be made to display charm, and be the result of as much thought as one costing a hundred times that sum. The Architect who works upon the smaller problem (we mean the conscientious and scrupulous man, of course) labors just as carefully as when he is working with tens of thousands of dollars to spend. In designing the small house, the Architect has not only to obtain an admirable result, but his work is complicated by the fact that he must employ materials and methods of construction that will not necessitate a disproportionate expense. It is difficult to say much with little and say it well.

The good Architect with little to spend will usually rely for effect upon absolute frankness in the treatment of his design. He knows it is far better to design a modest wooden house, which looks as though it were of wood and as though wood were the best material that he could possibly have used, than to design a house which looks as though it ought

THE ARCHITECT

to have been built of stone or some other more expensive material and therefore discredits whatever good qualities it may possess (Figs. 2 and 3). To do the simple thing, that which seems perfectly obvious after it has been done, is in essence what the Architect has to work for in the suburban house. With this task committed to him, coupled with the necessity of devising an efficient and economical plan, selecting the proper location for the house on the lot, and the treatment of the site, the Architect's hands are really full. Only the Architect knows how great these difficulties are, how beset they are with alternatives, and how insistent will be the spirit of compromise.

It is usually supposed that an Architect is an idealist engaged in the happy pursuit of realizing his dreams with other people's money. As a matter of fact, the Architect is forced to be a highly commercial everyday individual, keeping closely in touch with what President Roosevelt has aptly termed the "humdrum duties." He has to study to the end of his career, but, unlike his professional brethren, he has always to preserve, above the commercial and scientific point of view, a strife to unite the useful with the beautiful.

He is an individual who dreams of the things that he may at any time be called upon to do, and yet limits himself by the conditions under which he is working, in order to produce what is proper for the purpose at hand. In approaching his problem his point of view is far more prosaic than the Owner would be apt to suppose when he is informed of the high ideals which the profession of architecture demands.

Approached by the Owner to design him a house, his questions are distinguished at once by their commonplace and business nature. He inquires about such ordinary matters as the amount of money to be spent; the area and character of the ground at his disposal. He studies the life of

his client, whom he ought to meet within the family circle, so that he may design intelligently. All this he does before attacking the actual problems of design. Having gained this information, he is ready to proceed to business, determining how much he can afford to do and how it had better be done to be most serviceable and pleasing to his client and the latter's wife, who must, of course, figure very largely in his calculations and whose early acquaintance he must make. It is the lady of the house, especially of the suburban domicile, who has real and definite requirements of which the Architect needs to be informed. The Architect has to deal in his work not only with conditions abstract and concrete, but also with human nature, of which he must be a keen judge, even as a physician must be, to establish the right diagnosis of his client's complaint. His ultimate task consists in judiciously combining his issues to satisfy his client and his professional conscience, a task which at best is very difficult.

There is, on the other hand, the self-dominated "Artchitect." He can dispense with all these preliminaries with impunity and strike right at the root of the matter. The transaction of designing a home has no terrors or pitfalls for him. Like the up-to-date repairer of shoes or the cleanser of hats, he can do his work to the satisfaction of all "while you wait," and at a nominal price. His action is swift. The result explains itself.

We trust, however, that the Owner will discriminate clearly between these two persons. We hope that he will not regard the designing of his home as a matter which it is desirable to have over with as speedily as possible, for, however capable the Architect may be, it is not within his power to thus serve the Owner. The work of the legitimate Architect requires much thought and time.

CHAPTER VI

ARCHITECTS' DRAWINGS

It is now incumbent upon us to consider the language adopted by the Architect to express his ideas and conceptions. The Architect, of course, does not actually build the house himself. He plans and designs it. The work of construction is necessarily committed to the Builder and subordinate contractors. Some intelligible method of communication must be established between the Architect and the Builder. For this purpose the Architect's special media are three:

- 1. Drawings, known as
 - a. Plans,
 - b. Elevations,
 - c. Sections,
 - d. Perspectives (Figs. 101-106).
- 2. Writings, known as Specifications.
- 3. Instructions by word of mouth, known as Superintendence.

With the exception of No. 3, all, it will be seen, are paper communications. But, because the Architect uses paper and pencil, it must not be supposed that he is really a draughtsman, or that his work is in any way related to the making of pictures. The musician, too, uses paper for the registration of his productions, but the drawings that he makes, his queer little dots and dashes and lines, are merely symbols of sounds. The musician, in reality, thinks in terms of melody and harmony. In the act of creation he is, so to

speak, manipulating and playing with sounds. The engineer, also, is a maker of drawings, but he really thinks and calculates in terms of stress and strain, pull and thrust. The graphic arts are so dominant with us to-day that it is, perhaps, not easy for the average man to regard any form of writing as other than directly representative. Even in literature we are so habituated to our letters and types that we unconsciously slur the fact that they are, after all, symbolic or shorthand signs—things that stand for other things by the force of convention and sheer suggestion. Architect's plans are precisely of this character. They are only marks and indications of the Architect's thoughts made intelligible by usage and general acceptation. The real substance of an Architect's thoughts are directed toward the arrangement of a given dimension of space, the organization of certain utilities and materials so that they perform certain well-defined functions. It is his business to work with space and materials as a musician works with sounds. He selects, arranges, disposes these elements in order to obtain a beautiful and useful result. An Architect really loves brick for its qualities, marble and granite for theirs. precisely as a painter delights in the colors that compose his palette. No more erroneous idea exists to-day than the notion that the Architect is a maker of pretty pictures. Fundamentally he has no more to do with pictures than with photography or three-color printing. He may use his drawings to convey his thoughts, but they are far from being even the texture of his mental process. The building is the main thing that the Architect has to deal with, first, last, and all the time. The drawings are incidental. In them he imagines the building thoroughly thought out. The mental edifice, if it is ever to take substantial form, must be constructed in space, so that it possesses three dimensions —height, breadth, and depth. The last two of these dimen-

ARCHITECTS' DRAWINGS

sions, it will be seen, can be expressed in what is technically known as the floor plans. We have only to assume that the building is sliced horizontally, much as one might cut the top off a loaf of bread. If viewed from above, as from a balloon, we should look down upon the top of walls and partitions and so see the arrangement of rooms, passageways, and staircases. If the tops of these partitions were painted black and photographed, we should get a picture of a number of heavy lines and light lines, which is exactly what the Architect's "floor plans" are. The plan is, perhaps, the most important of the Architect's drawings. It shows not only the relative position of the various chambers, etc., but it carries with it, in the Architect's mind, those other drawings of his-the elevations and sections. The elevations are merely flat drawings of the four outside walls of the building, and the sections are merely vertical plans of the house cut through from roof to cellar. These drawings are perfectly intelligible to the trained eye. They exhibit the compartments of the house and the construction thereof in relation one to another, and these drawings must, of course, be true to scale like a map, so that exact measurements can readily be made from them. These are not the Architect's only drawings. It still remains for him to produce the "working drawings," showing on a large scale all the carvings, moldings, and the like. None of these drawings is at all of the kind that can be made in an amateurish way. They are highly technical productions, though they may all look very simple to the Owner who has never himself tried to complete a set. It is, of course, to be understood that these drawings must not only be adjusted to one another, but must correspond with the "specifications," which are really a long set of instructions given to the Builder directing him as to the materials he is to use and the methods of construction he is to follow.

We have said that the most important of the Architect's drawings is the *plan*, because it implies the others, viz., the Sections and the Elevations. Let us see why this is so.

In the first place, what does it mean to make a plan? What are the elements to be considered and what are the forces that come into play? The most obvious answer of the layman to this question is, no doubt, that it is the arrangement of the rooms in the house. This, while it is perfectly true, is only one of the issues at stake. In the ordinary suburban house, which consists of at least two floors and a cellar, it is, of course, necessary to make a plan for each floor. The question of relationship of arrangement is at once apparent. The plan, therefore, is not to be regarded merely as an absolute arrangement of rooms; it must be properly related to the other plans of the house. The mainfloor plan is generally the most important and therefore the first to be made, but even this depends on the others; concessions must be made so that the stairs will land at the proper place; the flues, heating, and plumbing pipes come in convenient places and so that the superposed weights will be properly distributed without necessitating costly and unreasonable constructions. And so we might further enumerate difficulties that have to be met in making the plan. There must exist between all the plans, the Owner will observe, the same kind of relation and correspondence as is essential in the individual arrangement of the rooms on any one floor.

The plan stands also in close relationship to Section and Elevation. Suppose, for example, a plan has been made of the first floor and found to be ideal in its arrangement of rooms. The section is next made and on it it is discovered that too little space has been allowed for the rise of the staircase; that, moreover, the windows, which worked out so admirably on both first and second floors, do not come in proper

ARCHITECTS' DRAWINGS

relation when viewed together from the outside. Or, perhaps, the beautifully ample fireplace in the living room comes right in the place where the bedroom window must be, and the bathroom fixtures discharge into a pipe which if carried down would come out in the middle of the hall near the entrance. The Owner surely would not suffer such plans to be built even if he were very much attached to the admiably arranged first-floor plan.

The Architect in making his plans has to think of all these things in their relation upstairs and down, inside and out, and make them work so that the maximum of convenience and beauty of aspect will result. In arriving at the solution of a plan which embodies any given set of conditions he, practiced hand that he is, carries in his mind many details and adjustments and does not need even to draw them on the paper. Like the great artist who produces by a few strokes a wonderful likeness or form, so the Architect indicates by a few judicious strokes of pen or pencil a complex scheme which he works out mentally, actually depicting only what seem to him the essential features. This sort of expression may seem elementary after it is done, but it is this very quality of simplicity which contains the secret. The result is not so remarkable by what it delineates on the paper as by what it has done mentally, and apparently not betrayed. But the experienced eye of the professional readily detects its real intent. To him the master's hand is apparent in drawings as well as in the concrete result which reveals to the Owner points of interest which would, in the hands of a less skillful performer, have turned out as weak spots instead.

It may be said, though there are, no doubt, exceptions to the rule, that the type of plan in the suburban house is determined by the magnitude of the establishment. From this it follows that the smallest and therefore simplest kind of

a house will have the simplest type of plan or, at any rate, it ought to. For practical purposes it would be extravagant for an Architect to design a six-room house in the shape of a "U" or a cross unless, perchance, the rooms were all to be distributed over a single floor. As the requirements increase in number and complexity, the type of plan becomes correspondingly elaborate and takes on such shapes as we illustrate in the accompanying plans (Figs. 32, 101-106). It must not be imagined that plan types are the whims of the Architect. We can safely assume that he has so many real problems to solve that he thinks beforehand very little, or not at all, of what shape the plan is going to be. The shape of a plan results from the correct solution of the problem according to the Owner's requirements. A vital change in these requirements may mean a change in the type of plan. No doubt many of us have visited architectural exhibitions and marveled at the cleverly weird and ingenious plans for some important piece of architecture. Perhaps some of us have even caught ourselves saying, How marvelously artistic and wonderful all this is! But what is it that is artistic and wonderful? Is it the color of the drawing combined with the maze of cleverly managed lines that we admire? Very often, no doubt, this is all we see. But let us not forget that if the drawing we so much admire is to be transmuted into a house it behooves us to have a more prosaic reason for expressing admiration. To admire or condemn by this process is ignorance and affectation. If the shape of the plan happens to be pleasing, it should not count against it, nor should it count very much in its favor. It is incumbent upon us to analyze it and find out what it means. Have the requirements been well met? Is the arrangement of rooms the most economical of space and the most convenient for use? Are the rooms well lighted and can they be effectively ventilated? Can the house be economically heated? Having decided to

ARCHITECTS' DRAWINGS

satisfaction such matters of necessity, then let the spectator, if he honestly can, admire the cleverness of the shape in which the Architect has clothed his ideas. If he be the prospective Owner he certainly will not indulge in such fanciful speculation when he is once comfortably installed in the house. Why, then, should it give him concern at all? We are pleading with the Owner to be affected by the Architect's plan only so far as he will come in contact with it when he is living in the house. We maintain that the simple plan is, as a rule, the best, and that if a plan is at all complex it is the Owner's requirements that make it so, not the Architect's desire for elaborateness.

CHAPTER VII

THE TREATMENT OF THE SUBURBAN SITE

FROM the preceding chapters the Owner has, perhaps, inferred that it is the business of the Architect to consider only the design of the House, leaving the treatment of the Site for others. In order no longer to keep him in doubt we must explain that it was not our intention to speak of the home as though the building alone were to be thought It is necessary for the Owner to retrace his steps if he has reached his conclusions by considering merely that part of his home which he has planned to put under cover. not the Site or Lot as much a part of his home as the veranda or even the roof? Has he not legitimate requirements beyond the confines of his four walls, features that are as essential to him as his staircase and his open fireplace? this there can be no doubt. A certain portion of suburban life is spent out of doors. Perhaps he and his wife are fond of flowers, delight in tennis or other sports. But even if they be not devotees of any of these diversions, they may be so fortunate as to possess a horse and carriage or an automobile, or at least some friend may. At any rate, one must be able to approach the house from a highway by a road of How shall this be accomplished? Shall there some sort. be provision for one wide driveway, or shall there be a separate service road? Such questions he must decide for himself, and at the proper time, so that the Architect may be aware of them when he starts to design the home.

The site, we may say, divides itself into two parts: that

THE TREATMENT OF THE SUBURBAN SITE

which is occupied and used by the Owner, his family, and their friends, and the other portion which is used for delivery service, drying clothes, and for other domestic arrangements which are not intended to be seen (see Figs. 4 and 10). This division immediately suggests a shield of some kind to conceal from the "show" part of the site the household services. The manner of effecting this screen, and producing at the same time a pleasing termination to the important part of the site, offers the Architect an opportunity for employing devices of utility as well as beauty. The whole question of the treatment of the site reverts to the primary question, which the Owner must answer for himself: "What do I require?" Having answered this question, the matter becomes, as with the house itself, a problem for the Architect, whose business it is to work out the Owner's requirements into such a solution as will make the most of the means at hand, detracting attention from their weaknesses and emphasizing the natural advantages of both house and site. One of the first thoughts that the Owner should give when he contemplates building a home is to select a site which is ample for the house and all the dependencies that he requires. A site which is not satisfactory from this point of view will not compensate him, by any other advantages, for the efforts which he is expending. It will never look well itself nor will it set the house off to advantage. The inevitable difficulties that arise are similar to those that come up in the Owner's requirements within the house if they have been improperly considered by him, getting too many rooms into a space insufficient for their proper proportioning and distribution.

How many gardens do we see designed, or rather not designed, that would proclaim their Owners as dealers in flowers and shrubs! This fault is traceable, in the great majority of cases, to a condition similar to that which calls

into being the "Builder-made" house. These gardens are the work of the artisan, the man who actually builds the garden, who plants and digs and sells, not of the man who conceives and designs.

A study of the average suburban-site treatment will convince the Owner that the successful solution of the problem lies not in the direction of greater expenditure, but rather in a proper recognition of its importance, as a legitimate part of the Architect's design. The suburban garden is not an independent matter to be dealt with any time and anyhow. The Owner's attitude toward the treatment of the site should be as toward the building, because they are strictly parts of an *ensemble*. While we realize that he will regard this advice as perhaps the "unkindest cut of all," we feel that it must be accepted if the result is to be satisfactory to him.

The gardens which we illustrate herewith (Figs. 33, 34, and 40-45) are those of larger and more expensive houses than we have in mind in these pages, but the principles involved in their design remain the same as for more modest establishments; and the same kind of a mind that conceived them is required to design the smaller layout. There is really no reason why the modest suburban lot of seventy-five or one hundred feet frontage should not be as appropriately and attractively treated as the pretentious gardens that we reproduce. But with the treatment of the site. as with the house, it is difficult even for an artist to accomplish much with little money to spend; the opportunity for the competent man exists, notwithstanding, and it is necessary for the Owner to consider also this side of the Architect's work in selecting him. The Architect who designs a house without reference to its environment and the site which it is to occupy is not any more judicious than the author who writes without knowing the people that are to read him.

The state of the contemporary suburban site shows that,

THE TREATMENT OF THE SUBURBAN SITE

as a matter of fact, it is seldom considered in relation to the house. A hole is dug in some convenient part of the lot and the house is deposited in and about it as if it were a piece of movable furniture. We furnish our houses in this thoughtless manner with obviously unsatisfactory results, similarly we place our houses on lots with no better effect, We are, perhaps, insensibly affected by this lack of correspondence between the buildings and their sites. The one does not grow out of the other. The picture is out of relation to the frame. To the trained eye a bit of tame nature, a mere surrounding of greenness, is not a substitute for a well-defined, well-conceived, artistic coördination of house and lot. Popular ideas on this subject are at present very crude, and people are satisfied with mere raw foliage, or with what the landscape gardener will give them. The "embellishment" (so it is regarded by the average suburban house Owner) is generally undertaken after the house has not only been completed, but sometimes occupied for a considerable period of time. It is clearly an afterthought, something which, in the Owner's opinion, is well enough if it can be afforded, but by no means a legitimate part of the home.

This idea of treating the site as a thing apart and more or less as a "frill" would not be so disastrous to him if it did not involve the same evil practice of employing an artisan to do an artist's work. If the Builder is admittedly capable of designing the house, how easy it must be for him to design a simple treatment for the site, a mere garden! There are not to be found in its make-up any of the thousand and one difficulties that lie hidden in the problem of the building. The Owner is obviously not to be blamed for taking this view, it is so perfectly human, granting that he is convinced of the wisdom of treating the design of the house in this way. We trust, however, that he will consider, before he acts, the other side of the case as we have

been trying to put it before him. If he decides, after due consideration, that the prevalent methods as applied to the designing of the suburban site will give him what he is after, his case no longer concerns us. We have a firm belief, however, that he has been pursuing his present course because he knows no other and courts advice and assistance.

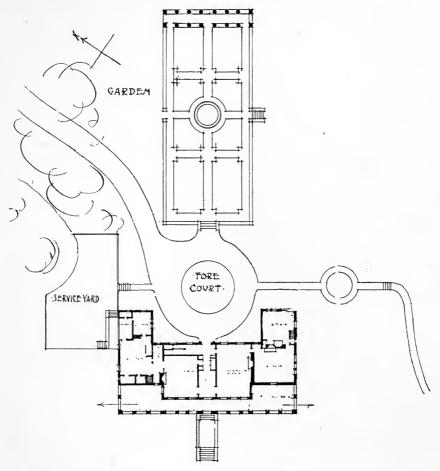


Fig. 33.—This diagram shows the treatment of the site on an unrestricted plot. The view from this house lies to the south and west. Its front has accordingly been faced between these two compass points to make the most of the situation. The pergola and gardens at the rear give an effective setting to the house when viewed from the highway. The driveway leads into the circular forecourt, which makes an effective transition from the house to the gardens. The main entrance to the house is from this forecourt. The reader's attention is called to the service yard which lies at a higher level than the court and is reached by a flight of steps passing through a screen.

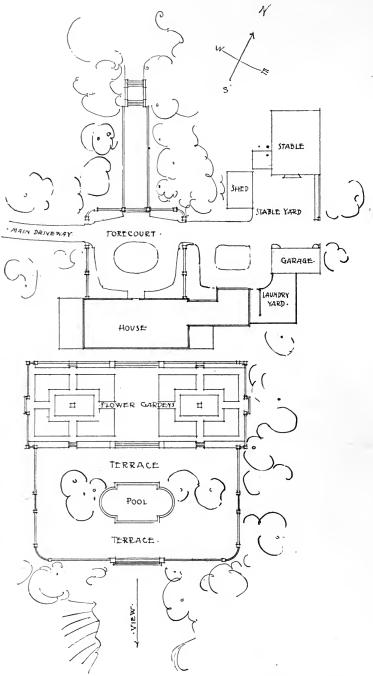


Fig. 34.—A more pretentious landscape treatment. The gardens in this layout are in front of the house instead of in back as in Fig. 33. The view in this case lies to the south and the land falls in this direction. The manner of approaching the house from the highway is similar to that in Fig. 33. The stables and outbuildings are partly concealed to the right by trees and foliage. The vista is developed in the direction opposite to that in which the view lies.

Fig. 35.—This illustration is given as an extreme example of the adaptation of a building to the particular features of a given site.

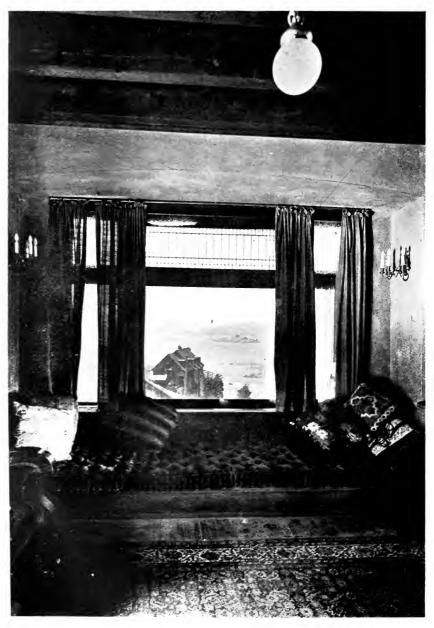


Fig. 36.—The exterior view and surroundings of a home are in a certain sense to be regarded as a part of the interior, and the plan should be so arranged that every advantage is taken of these external details. This photograph illustrates in a striking manner the author's meaning, being a view from the house shown in Fig. 35.

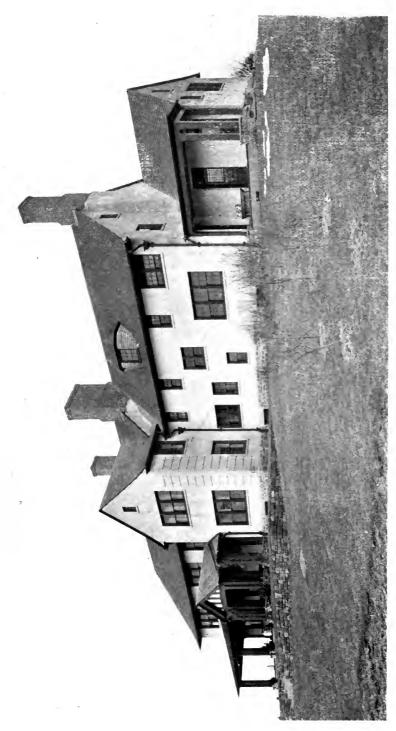


Fig. 37.—An admirably designed house which loses much of its charm because of the bareness of the site. It should be stated in fairness to the designer that the treatment of the site was not completed when the photograph was made and that the view which we give is merely by way of illustration.



Ftc. 38.—Simple treatment for the approach to a house. Note that the form of the hedge is in harmony with the form of the building. An effect of this character cannot be obtained by promiscuous planting.



Fig. 39.—Another good example similar to the one shown in the previous illustration.



Ftc. 40.—The idea exemplified in the preceding illustration, of a long vista to the house, carried to a further point.



Fig. 41.—A further extension of the idea. It is understood, of course, that garden features of the magnitude of the illustrations are quite beyond the reach of the suburban owner, but the photographs illustrate an idea, a method which the owner should not overlook in the arrangement of even a small lot.

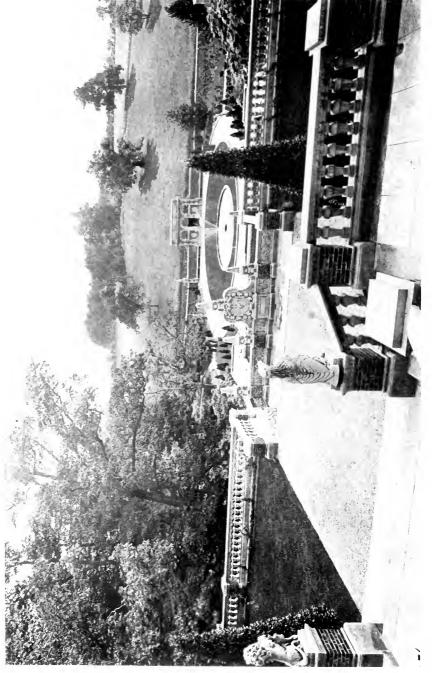


Fig. 42.—An illustration of architectural features on an extensive scale applied to the surroundings of a home.



Fig. 43.—A rustic pergola well adapted as a screen for the service court in the arrangement of suburban sites.



Fig. 44.—Illustrates the value of even a small accepted feature in the arrangement of the site.



Fig. 45.—Another example similar to the previous illustration.



Fig. 46.—An old-fashioned treatment of the immediate surroundings of the house.

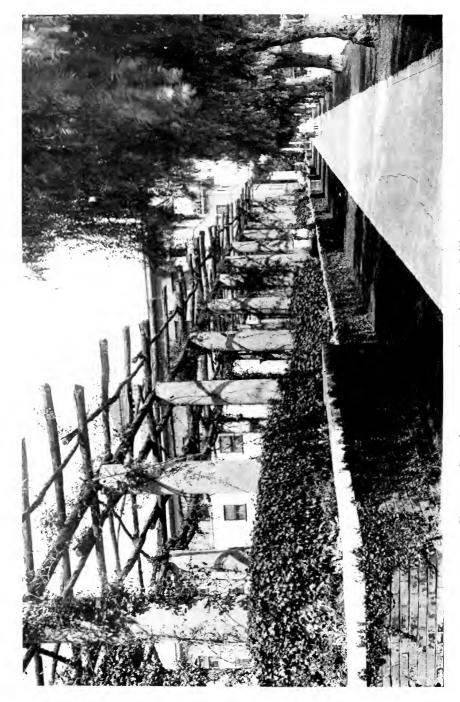
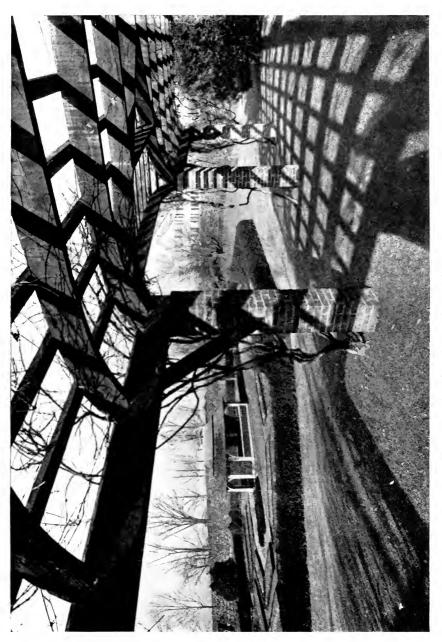


Fig. 47.—Pergola on an expensive scale in a California town.



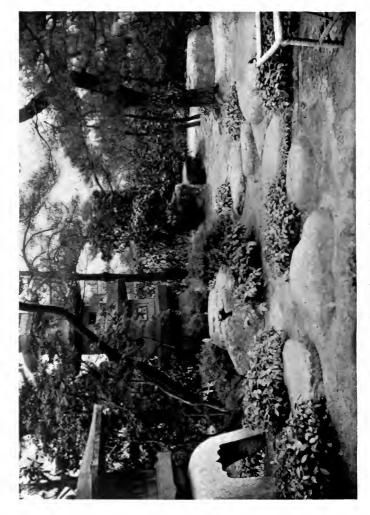


Fig. 49.—A garden suggestion from Japan.

CHAPTER VIII

FURNITURE AND DECORATION IN THE HOME

THE decorating and furnishing of the home is undoubtedly to most people the most interesting phase of house building. We can imagine the Owner saying, as he approaches the subject: "Here, at least, I shall be free from the dictatorship of the Architect and the Builder, and from those restrictive 'rules and principles' which allow me so little personal action in the actual work of creating my own home."

The authors of this book really feel sympathy on this score for the poor Owner. We know he would dearly love to meddle with things and run around ordering the Architect to do this and the Builder to do that, as though his were the superior mind. However, it is impossible to permit the Owner to usurp the functions of trained men unless he, too, has acquired training by study and experience. If we were to admit that the Owner is capable of performing in building the task he is so prone to undertake, we should also have to acknowledge that he is capable of directing his doctor, instructing his shoemaker, and similarly controlling the action of all other professional men, mechanics, and tradespeople with whom he may have dealings. The only other way out of the dilemma would be to proclaim the Architect a useless person, or at best a mere draughtsman, which would be an assertion directly contrary to the facts.

But, surely, it will be demanded: Is not the Owner entitled to assert himself in the lighter matters of decorating

BUILDING A HOME

and furnishing the home? No doubt, a greater measure of liberty is his here; but if he desires the best results, he cannot possibly be permitted to wander at sweet will among the giddy fantasies of the wall-paper manufacturer and the multitudinous "creations" of the furniture maker. The allurements of these pernicious individuals must be repulsed like the enticements of vice, for their end is destruction. Law here, too, pursues the Owner, and if his home is to be really beautiful, he must not cease from remembering that the decorations and the furnishings are only a part of a whole, and must be treated, therefore, as such, and conform to and be controlled by the work of the Architect. We have seen that the Owner must not place any kind of house on any sort of lot, nor slavishly copy other men's houses, and for the same general reason the Owner must not install in his interiors any kind of wall paper because it pleases him "in the piece," nor any suite of furniture because it looks "swell" in the furniture store. The furniture and the furnishings must be made to fit, and the "fit" must be to the house, not to the Owner's taste in general. A man may like furniture of Louis XIV, Empire, Adams, or even Grand Rapids style, and his taste may be unimpeachable, so long as the furniture is judged in vacuo, yet the furniture may be desperately wrong the moment it is placed in its permanent position. The effect produced may be one of gross incongruity. Furthermore, there is a grammar of good taste in these matters. Who has not seen rooms that were felt to be as wrong, in their way of wrongness, as "we was" in its? We dread to say it, but the fact must be put on record—the Architect should furnish the house, or at least act in an advisory capacity in the selection of decorations and furnishings. Twenty years ago this statement would have sounded stranger than it does to-day. As public taste has improved and houses have become more costly, the Owner everywhere

FURNITURE AND DECORATION IN THE HOME

has evinced an increasing willingness to confide more and more to the Architect. This simply means greater willingness to trust a trained man—which is common sense.

For some time to come, however, much of the decoration and furnishing of our smaller homes must remain within the jurisdiction of the Owner. When the house is turned over to him by the Architect, in ninety-nine cases out of a hundred, it is already "decorated," with the exception of coverings for the wall. Only the paper-hanger needs to be called in to supply absolute deficiencies.

We trust we have said enough to make the Owner wary of the paper-hanger's "samples." It may safely be said that the greater part of the wall paper offered in the market to-day is just about as artistic as newspaper. The inordinate, overpowering demand for cheapness at any cost quite naturally produces cheap results. But when to the demand for cheapness is joined a desire for "stunning effects," the outcome is little short of terrible. This is especially true of wall paper. The old-fashioned kind, covered with a multiplication of roses, buttercups, marigolds, and the rest was in-offensive so long as the pattern was not too exuberant. But this cannot be said of our more modern imitation "L'Art Nouveau" freaks. These novelties may be "done right," but they cannot be done right and cheaply. Not only with wall paper, but with all other elements of decoration, cheapness is the curse of modern work—the desire for cheapness joined to the desire for "swell" effects. The man who spends \$50 wants to make his house look like the house of the man who spends \$100. It cannot be done. The effort is thoroughly meretricious. It is the root of a host of evils committed in the name of Art. While we cannot agree with the poet that "truth is beauty and beauty truth," it is certainly true that the Owner cannot get much that is worth having unless he is willing to let things stand for what they really are.

BUILDING A HOME

If he cannot afford to buy stamped leather or tapestry for his walls, let him choose a good cartridge paper or burlap. Let him not be tempted by any momentary weakness into buying imitation leather or papers with mock tapestry patterns. Better, indeed, to paint the walls or even calcimine them with a good, simple, harmonious color. There are many simple fabrics in the market that are available for his use. Only let him rigorously cut down his effects as he reduces his expenditures.

The same principle applies to furniture. Nearly all the furniture that the majority of people buy is of poor design and workmanship. Undoubtedly it is difficult to purchase at a moderate price anything that is good. The maker of furniture is probably not so much to blame for the character of his goods as is the buyer, for the manufacturer places on sale such articles as his experience has taught him will sell quickly. If the majority of people wanted really good furniture it would be supplied as readily as anything else. The truth is it is not wanted, or, at any rate, it is not wanted in sufficient quantities to make its production the ordinary course of trade. The majority of people do not demand simple furniture, well made. They prefer to purchase articles that pretend to be better and worth more than they are. They desire a cheap imitation of some ornate and expensive pattern, which their means will not permit them to Hence springs the stained imitation wood, the brilliant varnish that almost cries aloud, the meaningless fret-saw work, the glued panels, and the ugly misshapen excrescences that are classified as "carved." How much more a great deal less would be! Would not good, simple, wellmade furniture be better? Would it not be more comfortable to live with? The taste that produces it, the demands that create it, are utterly vitiated. How is it possible to produce a really artistic home out of these sham gewgaws,

FURNITURE AND DECORATION IN THE HOME

these snobbish signs of wealth, this false ostentation, particularly if, to complete the imposture, we picture them housed in copied and imitated homes, planned for us according to a set of fictitious requirements?

At one of our big exhibitions a room was exhibited furnished in a different spirit. The walls were covered with an oil paint, the surface decorated with an exceedingly simple stencil design. The hangings were absolutely plain, of a somewhat coarse material, not unlike a softer and more flexible burlap. The electrolier was of black, rustless iron, handworked without any attempt to produce a complicated ornament. The dining table, as with the rest of the furniture, was of well-chosen oak, oil finished. No carving was attempted, but chairs and table and sideboard alike were carefully proportioned, solidly constructed, designed and made for use. The chair seats were formed of rushes, the carpet, or rather rug, was a plain monotone that harmonized with the walls, but manufactured of coarse material, tightly woven. The table was furnished with plain linen. Good glassware and inexpensive china, exceedingly well decorated in a limited degree, completed the scene. Hardly anyone saw that room without a sense of its completeness, its appropriateness, and good effect. Yet it cost no more, nor perhaps as much, as a sham "Colonial" dining room or others of the fictitious sort. Why did not everyone who saw that room go home and destroy, without a pang, their Pullman palace-car drawing-room furniture? Barring the expense nothing, it seemed to us, stopped them except lack of courage—the fear that the real thing would not look well enough. But the real thing is the only thing that looks well to the educated eye or satisfies the cultivated appreciation.

We feel we must go even one step further and in a certain measured sense object to the plan of furnishing homes with a collection of antiques, as though it were a part of the

BUILDING A HOME

Owner's business to create a home with something of the air of a museum. This chase after a spurious result is in many cases very closely allied to the desire for sham effects. It is only a slightly more cultivated and chastened evil. Old furniture there will always be which belongs legitimately to some families, but to complete the new home and furnish it by ransacking second-hand furniture shops in the country or in Europe is not to be commended. No doubt, much of this old furniture is of very excellent design, very well worth having in itself, but the people who made this old furniture made it as new furniture. There are manufacturers reproducing at a nominal price the old furniture in cheap imitation materials and making it resemble as far as possible the genuine article in its time-honored condition. The new old Colonial is a good instance of this practice, the propriety of which, for any purpose other than the stage, is unworthy of serious consideration. If ever we are to have good new furniture we must adopt the old methods-abolish all fictitious shams and cheapness. "Do not imitate anything." After all, this is the first and last great obligation we must impose upon the Owner in the furnishing and decorating of his home.

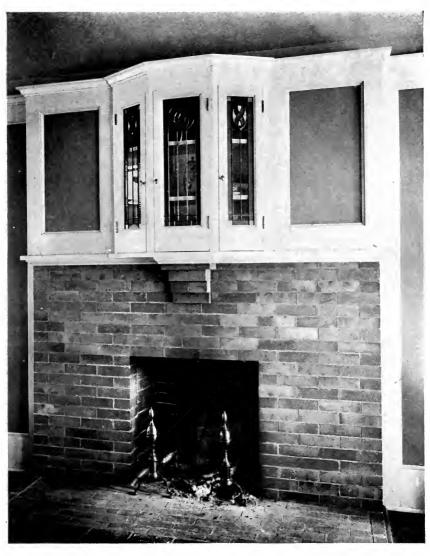


Fig. 50.—A fireplace for a library; the grace and simplicity of the design are readily appreciated.



Fig. 51.—A convenient form of sideboard and china closets. The reader should note how the designer has composed these necessities to form part of the decoration of the room.



Fig. 52.—A sideboard of more pretentious design.

Fig. 53.—A good type of old-fashioned sideboard.



Fig. 54.—An electrolier for a hallway. The decorative treatment of a room is often marred by tawdry and inappropriate lighting fixtures which Owners are prone to install against the advice of their Architects.

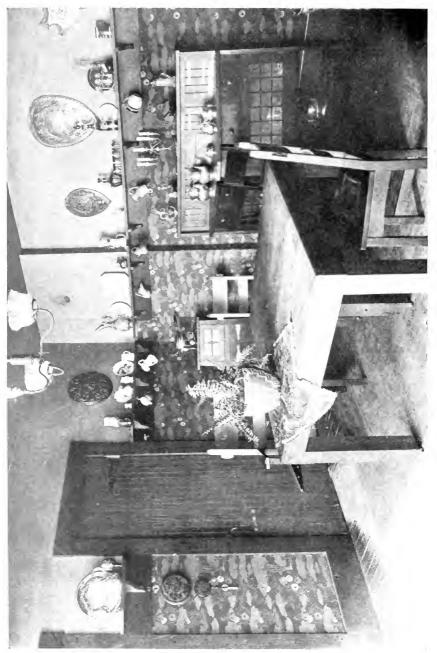


Fig. 55.—A good example of excellent simple furniture, woodwork, and wall treatment.

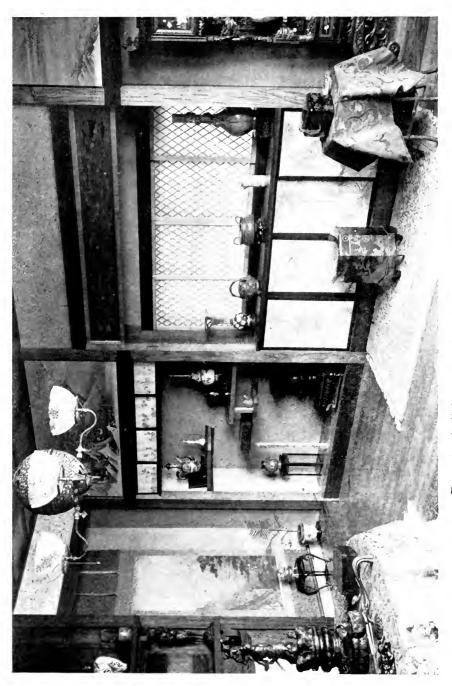




Fig. 57.—An expensive treatment of reception-room. The door on the right leads to the stair hall and the principal rooms of the house,



Fig. 58.—A den or sitting-room.



132

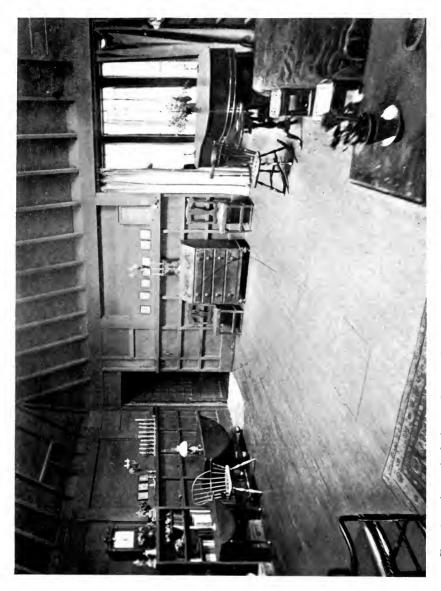
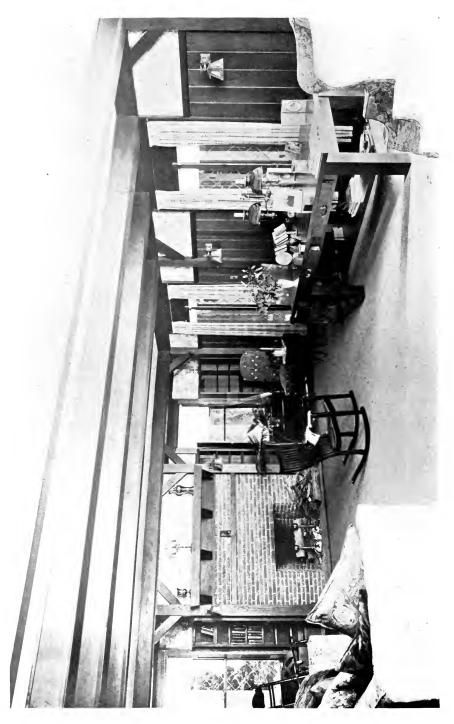


Fig. 60.—A particularly good example of the general assembly-room plan. The small apartment to the right could be used as a withdrawing room for the reception of casual visitors, or as a room for reading and writing.



134



Fig. 62.—Another example of the spacious effect which the general assembly-room plan produces. In this case the "parlor" could occupy the space in front of the picture. The dining-room would be placed as in the rear.

Fig. 63.—A more conventional arrangement of the general assembly room.



Fig. 64.—This illustration is given as an example of what could be done with the "parlor" portion of the general assembly room.

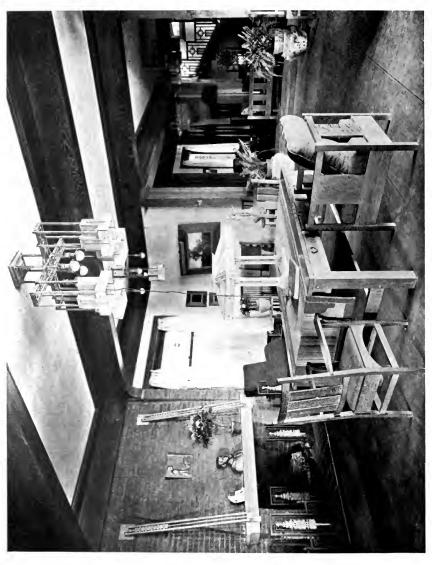


Fig. 65.—The reader's attention is directed to the foreground of this picture. It suggests another method of treatment for the "parlor" portion of the general assembly room.

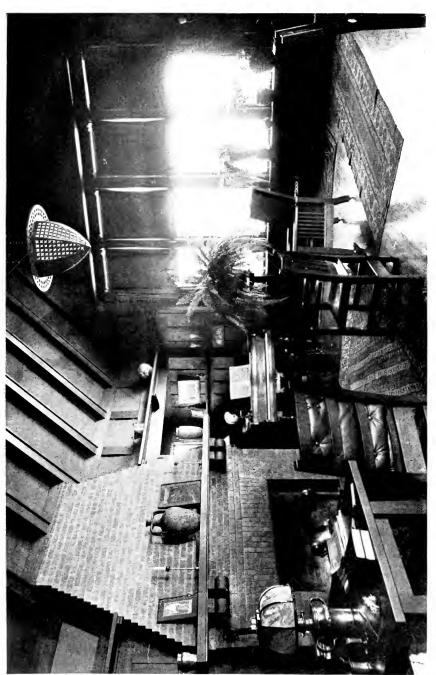


Fig. 66.—The reader can hardly fail to observe how much more space is obtained for furniture and living accommodation by the plan shown in this illustration, and those immediately following it.



Fig. 67.—An effect of largeness can often be obtained in a room by finishing the ceiling along the slopes of the roof.



Fig. 68.—An inviting bungalow room.



Fig. 69.—A fireplace for a bungalow.



Fig. 70.—A living room in which the furniture is in excellent keeping with the architectural embellishment of the room.

CHAPTER IX

THE BUILDER-HIS SELECTION AND HIS FUNCTION

N the building of his home the Owner has two important selections to make, namely, the Site and the Architect. These are his inalienable prerogatives, which we have no intention, in the slightest, to dispute. He certainly has a right to say where he wants to live and who shall design his home. Passing on from this point in the argument we can plainly see him continuing in a perfectly obvious course to the next step—the selection of the Builder. The Architect has made him his design, and he must now find the proper man to give concrete expression to the "paper work" of the latter. And why should he not concern himself about such an important matter, the matter in the whole operation? It is his money which is to be spent, and surely no one can be as much concerned as he to secure full value therefor. If this is not his fundamental privilege, surely then he has no rights at all. Can he not even be conceded the privilege of buying his goods where and of whom he chooses and paying for them what he desires? No, we must emphatically say, at least not in the building of his home. At this we can hear him exclaim: "Ruled out again! Except for an introductory exhortation and command to the Architect, I have nothing to do in this play of mine." Gentle reader, this is not a situation peculiar to the building of a home. You have to ride in trains and trolleys merely as passenger, because the driving of the vehicle is not your affair, and you are both ignorant and incompetent so far as the control of trains

and trolleys is concerned. In your business affairs you trust yourself to experts, and you must not think that the laws of the game change; that the complicated operation of building is a strictly private affair for the Owner. No, there is nothing to be done, we are afraid, but to exclude the Owner from the Builder just as we excluded him from the architecture. He must remain an onlooker; if an advised and instructed spectator, all the better. We add this latter clause because we are inclined to think that the Owner will notice, in what passes between Architect and Builder, much that he will feel at first impulse inclined to thoroughly disapprove. It has often been remarked that in the general affairs of life the immediately pleasant thing to do is rarely right; it seems that the Devil gets hold of the best end of the stick and invariably offers that to us first. In practical affairs it is somewhat similar. The real common-sense view does not immediately persuade us; the right method is hardly ever the ready method or the method that appeals immediately to the uninstructed.

The Owner is compelled once more by the force of circumstances to trust himself to the expert. In other words, it is the function of the Architect to choose the Builder. But why? The answer is what we have, no doubt, repeated many times in these pages: Because the Architect is the only one who is *competent* to make the proper selection. As author of the design, the conceiver of the home, he is the only one capable of interpreting it to the constructor, and he is, moreover, especially qualified to do so because of his extensive knowledge of building matters. Thus his position is unique, and the Owner can rest assured that the Architect's decisions are best for him.

No doubt the Architect will take the Owner somewhat into his professional confidence in his dealing with the Builder. There are certain matters which are considered

THE BUILDER

by the Architect—we mean, of course, the scrupulous and conscientious man—before he awards a building contract.

First.—He will not select the lowest bidder simply because he is the lowest bidder. This is, perhaps, the first mistake that an Owner would make were he to let the contract for the building. "Why not save that \$500? Jones, the builder, is a likely fellow; says he is anxious to get the job, and will take it at a very narrow margin of profit." It is often the case that the lowest bidder does not produce the building for the least money. The Builder, particularly of suburban houses, is rarely a man of considerable financial resources, most frequently he has very limited capital; oftentimes he operates on borrowed money. Now, the Owner must know that under these circumstances the Builder, unless he has furnished a bond for the complete satisfaction of his contract, is always operating at the Owner's risk; for if the Builder fail, or for any reason do not satisfy the legitimate claims of his workmen and the building-material firms from whom he purchases his supplies, the Owner's house is put in pawn, so to speak, for the unsatisfied payment. The mechanics' laws in nearly all our States are extremely severe. They afford extraordinary protection to those who have done labor or furnished goods. The Owner may even have paid the Builder, but if the Builder in his turn has not paid his creditors, the only redress for the Owner is against the Builder, and if the Builder has failed, the redress amounts to very little. In order to obtain his house free and clear he must pay the Builder's debts, so far as they are involved in the construction of the new home. Of course, a prudent Owner will not pay for his building except as construction progresses. He might even take care, before making each and every payment, that the Builder has discharged all his obligations. Nevertheless, the fact remains that it is very much to the interest of

the Owner to employ none but responsible contractors. We all know that the responsible contractor has somehow lost the trick of working below the market price, a trick which is wholly in the possession of the inexperienced or irresponsible Builder. The Architect may therefore very well reject the allurement of the lowest bid, and reject it entirely for the protection of the Owner, and clean contrary to what the Owner might regard as the plausible proceeding.

Second.—The Architect will choose, if possible, a local man who best knows the conditions of labor, materials, and transportation of the locality. Such a Builder is always in position to give the most reasonable figure for the best work

that may be expected.

Third.—The Builder of the Architect's choice will be preferably a specialist in suburban-house construction. This precaution is of more importance than would appear at first thought. Obviously, the experience of a Builder on similar jobs enables him to better realize in advance the difficulties that will arise, thus saving the Owner time and money. Secondly, experience facilitates coöperation with the Architect and avoids friction.

Fourth.—The Architect will not award the contract to a Builder who is unable or refuses, for some reason or other, to give a bond guaranteeing the faithful performance of the entire contract. Circumstances might arise which might make it advantageous for the Builder to abandon his undertaking. The price of materials might advance; labor might become scarce in a locality; or the Builder might obtain more profitable contracts elsewhere, and be willing to forego his profit to be released from further obligation to perform his contract with the Owner. In such an emergency another Builder called upon to complete the work would be compelled, in order to make his profit, to charge a considerable

THE BUILDER

sum in excess of what it would have cost to finish the contract in the first instance.

Fifth.—The Architect will be inclined to award the entire contract for the building—heating, plumbing, and the rest—to a general contractor for a lump sum. We except, of course, from this general contract such objects as are not stationary, e. g., furniture, tapestries, and the like. These, we maintain, the Architect should select in consultation with the Owner, leaving it to the general contractor to employ his own subcontractors. This, also, the Owner may notice with some feelings of apprehension for his pocket-book. We believe, however, that in general this is good practice. It is not by any means the only wise line of conduct; circumstances alter cases; but in general it is the best practice in the erection of smaller houses. Very frequently a general contractor will be legitimately in a position to erect a building cheaper than could a number of subcontractors. This is due to the fact that "practice of trade" has established a system of heavy discounts, which a contractor may claim, but not an Owner. The general contractor, therefore, is somewhat in the position of the wholesale trader; moreover, one general contractor concentrates responsibility. There are great possibilities for conflict where a number of independent firms, each with equal authority, are at work on a single building. Their activities overlap, and in certain places this area of intersection very easily becomes a place for disputes which are invariably carried on at the expense of the Owner.

The Builder's selection having been put where it right-fully belongs—on the shoulders of the Architect—let us see what sort of an individual the Builder really is. In general, we could, perhaps, not describe him better than by saying that he is the great materialist in a transaction which up

to this point has been of a thoroughly intellectual character. He comes laden with brick, cement, lumber, and the rest, ready to take the Architect's plans and give form and substance to the ideas contained therein. We trust that some of our previous remarks have removed entirely from the head of the Owner even the faintest notion that the Builder is in any sense a substitute for the Architect. The two men are, by training, by habit of thought, by temperament and purpose, as far from one another as the poles. The men spring from almost opposite origins. The rough materialistic Builder usually lacks an appreciation of the very things which are the chief concern and delight of the Architect. Beauty of form, clearness of expression, are the excellences which are nearest to the heart of the Architect, whereas the Builder is more particularly concerned about economy and durability. There are other matters, no doubt, which interest both Architect and Builder, but we are speaking here just for a moment of the greater interests of each in order to exhibit them for contrast. The Builder, indeed, is rarely, or never, more than a controlling workman. Usually he contemns the Architect. Being himself a man nearer to the ground, he is prone to undervalue all the less tangible qualities which he himself lacks.

It will thus be seen that were the Owner, who, we have confessed, knows nothing of Architecture, to "switch in" and so come between the Architect and the Builder, it would probably be to the injury of the Architect and his work. The Builder being at best a constructor and nothing more, some competent person must provide him with plans and ideas to construct, and surely no one is so competent, or, indeed, competent at all, to thoroughly supervise the work of construction as the man who imagined the building and made the plans—in other words, the Architect.



Fig. 71.—A dining-room designed throughout by an architect. Note the general correspondence of woodwork and furniture with one another.



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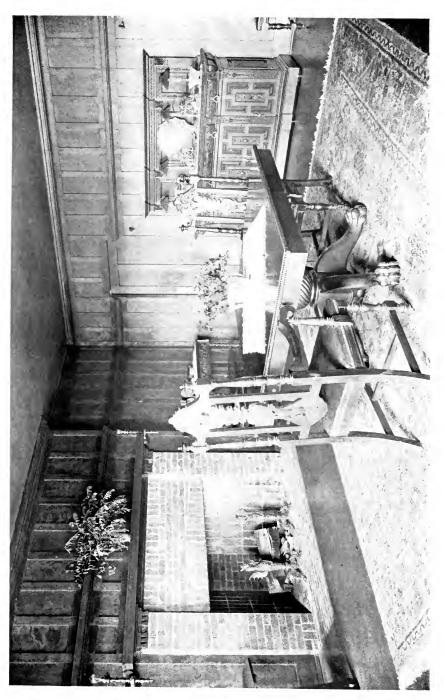


Fig. 73.—A modern dining-room.



Fig. 74.—An old-fashioned type of dining-room.

Fig. 75.—An expensive modern dining-room.



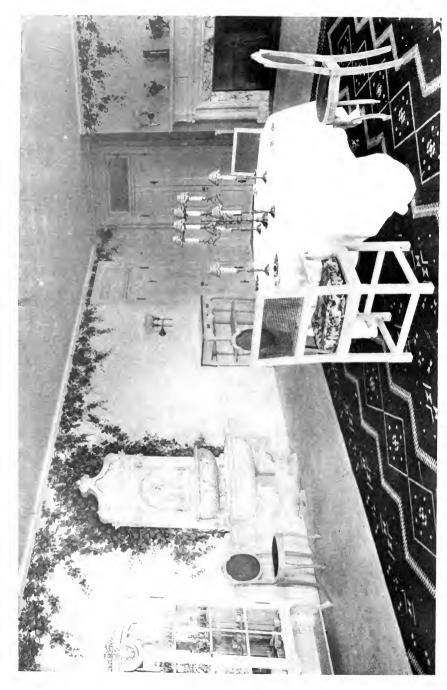


Fig. 77.—A dining-room. A suggestion for wall treatment and furniture.

Fig. 78.—A dining-room. Old-fashioned furniture and wall paper, both of excellent quality.



Fig. 79.—Another old-fashioned dining-room, admirably furnished and decorated.



Fig. 80.—A drawing-room.



Fig. 81.—An expensive library and study.



Fig. 82.—An Old Colonial hallway and staircase well adapted for the assembly-room plan.



Fig. 83.—This arrangement of the hall and staircase, borrowed from the Old Colonial, is always an effective feature.

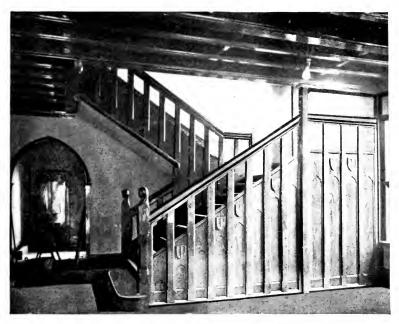


Fig. 84.—A good example of the conventional hall and staircase.



Fig. 85.—The woodwork shown in this illustration is of a costly character, but less expensive work could be obtained based upon this example.

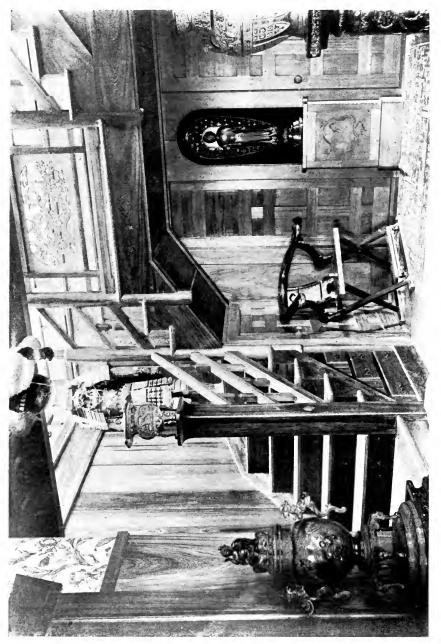




Fig. 87.—An arrangement of hall and stairway which would fit admirably with the general assembly-room plan.



Fig. 88.—An illustration of the general effect that may be obtained by the "general assembly-room plan" referred to on page 162. The apartment at the farther end reached by the three steps could well be the diningroom.



Fig. 89.—A good staircase well designed on conventional lines. The attention of the reader is directed to the rich effect obtained from the simple treatment of balusters and hand-rail.

CHAPTER X

THE CONSTRUCTION OF THE HOME

We are all, no doubt, more or less familiar with the proverbial trials of country life, with rooms that cannot be comfortably heated, with roofs that leak every time it rains, with flues that refuse to draw and pour volumes of smoke into rooms, with faucets that annoy by their "tinkle tink," and mice that disturb our slumbers. These petty nuisances and others are the characteristic by-products of the "ready-made house" or of the house that is constructed (even though it be from an admirable design) without the proper supervision of the Architect. These difficulties are superfluous and, in fact, impossible if the Owner will but say the word and place the power of action where it belongs. He will find it the only sure way to get the essentials of comfort and convenience in his home.

Owners to-day, in contrast to those of a generation ago, are too prone to sacrifice (perhaps they are unaware of the fact) real and substantial matters to purely surface display of showy finery. It is especially easy for the obliging Builder to detect this weak spot in the Owner and adapt himself to it, not to his own disadvantage, but invariably to the ultimate discomfiture and dissatisfaction of the Owner. To prevent such a state of affairs is the first duty of the Architect, and the advantage which the Architect-designed and-superintended house possesses over the "Builder-made or paper-pattern house" is chiefly in its more real and, in the end, more livable qualities.

The Owner will find, no doubt, that the Architect is continually making the Builder do and "put in" certain things which the man of the hammer and the shovel would advise the Owner, if the latter were willing to be advised by him. to reject as mere fads that add only to the expense account. Heeding such counsel, the house would be equipped with a heating apparatus of just sufficient power to do the work required under favorable circumstances, because the Owner would effect thereby a small economy in first cost. Let the Owner shiver in his house for a winter and pay the coal bills and he will not fail to bless his adviser! This has been the experience of so many Owners that one is prompted to ask the question: "How much longer will the Owner allow himself to be misled in his zeal to get things cheaper than they can legitimately be bought?" We would say to him: "Don't be surprised and distrustful if you find that the Architect is specifying something of which you cannot see the immediate use or the future necessity. This precaution is being taken to guard you against conditions the existence of which a long experience has demonstrated. Lacking this experience, you, as occupant, will not recognize these conditions until calamity is upon you, when the remedy will be more expensive and less effective."

It is in places that are out of the way and are not visible when the house is finished that the Architect has to be particularly vigilant, and here, also, lies a great weakness of the "ready-made" house, which is built to sell immediately, before its defects of structure and equipment can be detected. The conscientious Architect will protect his client from shortcomings of this kind. The Owner will find it worth the extra money it costs.

We cannot in these pages advise the Owner what materials should be used or what equipment should be installed in his house. Each domicile is a case by itself, and there is

THE CONSTRUCTION OF THE HOME

no "general advice" that is of any real value. We have indicated a general method of procedure in the building of a home, and we have said what we can to keep the Owner from interfering with experts, and there, as a matter of fact, our chief duty lies. It may sound wise, but really it is only the wisdom of the patent-medicine circular, to tell the Owner categorically that it is better to build his house of stone than of wood, and so on, making, in each case, arbitrary selections for him. The selection, for instance, of the best building material for the construction of the interior depends upon a great number of considerations. There is the Architect's design, for example. If it were conceived for a brick structure it will never do to realize it in stone. Conditions of climate, facility of purchase, expense of working, etc., all of these are factors that must directly influence the choice of material. To take an example: We hear a great deal these days about concrete houses, and the question is asked: "Is it not better to build in concrete than in wood?" just as though this was a question that could be decided without reference to any other fact whatsoever. Concrete, no doubt, is a very promising material. Possibly it has a great future. Equally certain is it that it would be a good thing for us could we entirely abolish wood as a major building material. But-and the Owner should note this "but"—it is better to continue to build with lumber than to construct concrete houses that are not built with moisture-proof walls, with dry foundations, and the like. No doubt dry concrete houses can be built, but built in a proper fashion they are really expensive, a great deal more expensive than popular figures indicate. We instance this case of the concrete house so that the Owner may see that there are many things unknown to him that should determine the choice of material. The decision of a technical expert is necessary, and in this case the technical expert is

the Architect. Therefore, Mr. Owner, do not imagine for a moment, when the Architect specifies what you don't immediately approve, that he does so because he fancies, guesses, or trusts to Providence that it is the proper thing to do. He *knows* there is nothing wiser for him to do.

And so it is with the thousands of patented articles and devices that are upon the market. They seem to be useful, and many of them, indeed, are excellent, but a good thing is not a good thing everywhere. And as to labor-saving devices, many of them would be of greater permanent utility were they less clever. The Patent Office at Washington is a gigantic proof of this statement. There are tens of thousands of clever inventions entombed in the records there. If they have never served any working purpose it is not because the idea was not clever enough—the patented article contained some practical defect, often very minute. We think we are correct in saying that most patented articles are superfluous, they are really not needed, they don't serve any real necessity. In the game of life they are really nothing better than useful toys that cater to the appetite for "novelty." This is practically true of building devices and materials. We have to put our trust mainly in the great staple goods and in the old time-tested methods. There are exceptions, of course, to this statement. Many new materials and patented devices have demonstrated their permanent value. These, as a rule, however, do not cheapen the cost of building. They make a house more comfortable or safer, and this is justification enough for their adoption, but really the Architect is the best judge. In speaking as we do we are not decrying "improvements" or anything of the sort. We are sure, however, that it is not wise for the Owner to be seduced by every new notion that comes along and claims that because it is the "latest thing" on earth it is necessarily the best. It is a question of fact and value after all.

THE CONSTRUCTION OF THE HOME

Many devices which were luxuries ten or fifteen years ago are now absolute necessities. The day of the oil lamp in our American suburbs is no more, and drawing water from the well in the "old oaken bucket" is but a fond memory to be preserved in verse and song. Electric light, sanitary sewage disposal, and high-pressure water supply have replaced them. It is especially in sanitary matters that a great advance has been made. The present-day luxurious bath and toilet accommodations, with cold or hot water at a moment's notice, would have seemed purely visionary to country people of fifty years ago. Yet such appurtenances are to be found even in the modest suburban house of to-day. All of this means progress, but it is progress that has been maintained only by a strict selection. It will not do for the Owner to give an open check even to modern progress. He had better pay the Architect to look after the matter for him.

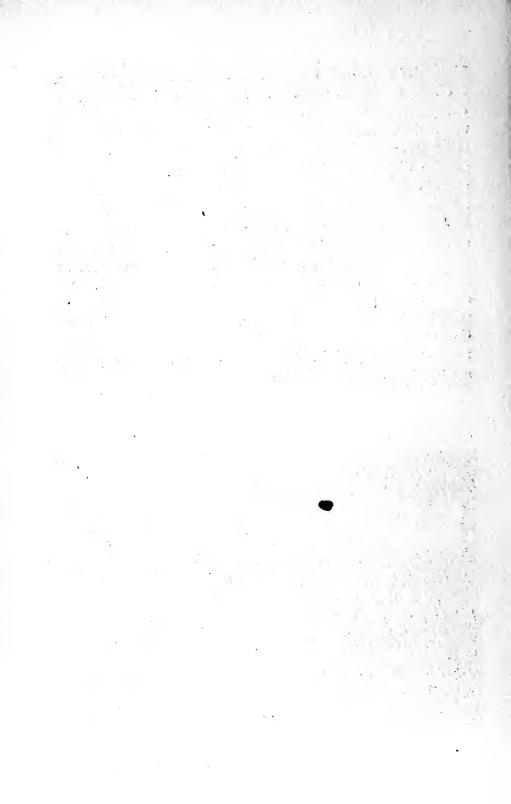




Fig. 90.—An old-fashioned bedroom.



Fig. 91.—A bedroom in a bungalow.

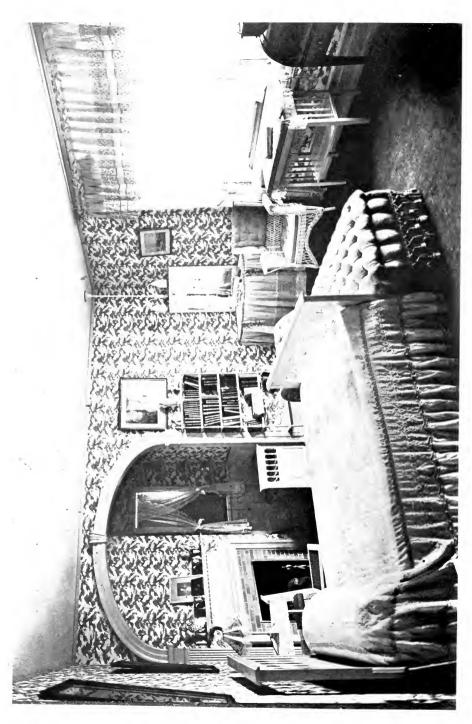




Fig. 94.—A bedroom in white showing an elaborately carved old "four-poster."



Fig. 95.—An ample veranda that does not exclude light from all the lower rooms of the house.

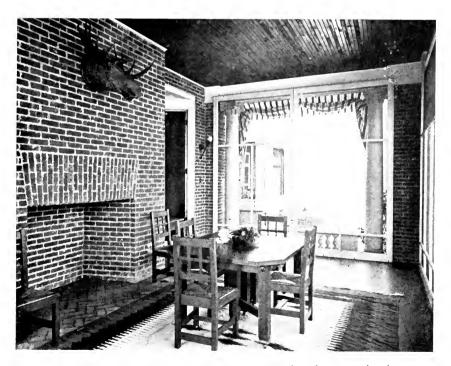
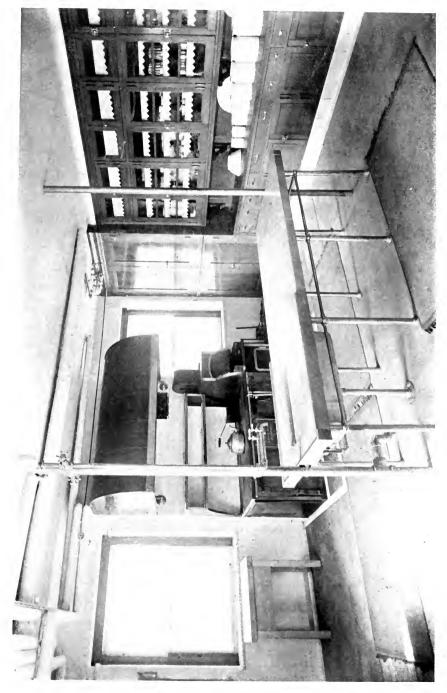


Fig. 96.—This illustration suggests a treatment for the veranda that may be used as a sun parlor in the winter time.



Fig. 97.—Modern equipment for a bath-room. It is particularly recommended that the bath-room should be of ample dimensions.



The remainder of the room could then be used as the kitchen proper and would in consequence be a room of more comfort, Fig. 98.—A modern kitchen. In a small house a partition should be placed at the rear edge of the serving table. being separated from the heat of the stove.

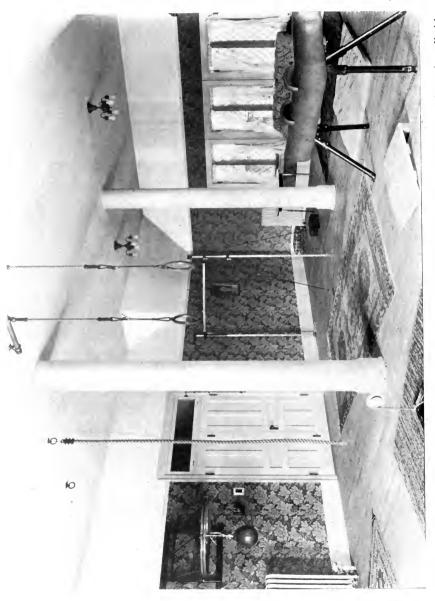


Fig. 99.—The gymnasium in the home. At a slight additional expense it is often possible to install this valuable adjunct in the unassigned portion of the attic.

CHAPTER XI

BROADER ASPECTS OF THE PLAN

In the preceding chapters a method of procedure in building a home has been outlined. The subject has been dealt with in a preliminary manner, because the most important of all things is to make intelligible to the Owner the nature of the problem of house-building. If this could be thoroughly accomplished, the Owner's common sense would be a sufficient guide afterwards. At all events, his common sense might be trusted provided one or two further matters, not elucidated in the preceding chapters, were explained to him.

These additional matters lie, indeed, outside of the Owner's personal province. Anything that can be said to him about them must be, in the main, merely explanatory, to enable him to better appreciate the work of the Architect, and to coöperate with him more efficiently. An intelligent patient greatly aids a doctor in his diagnosis, and, in like manner, an instructed and appreciative client may even have for the Architect the force of an inspiration.

The first of these extra matters to be dealt with is the Plan. To fully comprehend the meaning and value of the plan of a building one must be a thoroughly educated architect. It is difficult to make the layman understand how important the plan is. We have said something on this score elsewhere, but whenever Architecture is the subject of discourse it is to the plan, and again to the plan, that one must return. Clearly, this is not the theme one hears

most of as one listens to the conversation of friends about their new home, prospective or actual. This is not surprising, because the public point of view in regard to a matter of art is rarely the essential point of view. public eye, because it is untrained, is too frequently fixed upon some superficial aspect of artistic production. Or, if it be not the superficial that attracts, it is the emotional element exclusively. No doubt, we must not disregard the emotional, but we must also understand that art is very far from being, in the warp and woof of its texture, a purely emotional creation. The intellectual element is there also -a design is there, a scheme, an intention, a plan. It is, on doubt, difficult to reach and appreciate the intellectual element of a work of art if one lacks some knowledge of the technicalities of art. How the artist works is as little known to the public as is the higher mathematics; and yet we must all recognize that our appreciation of anything cannot really be just and complete unless we know how the things we admire or dislike are related and composed.

At a recent rehearsal of a new symphony a number of musicians were present. The composition proved to be of unusual merit. It was evident that the audience was deeply impressed. A layman, very naturally, might have become curious as to the judgment that experts present would pass upon a performance that had so deeply affected his own feelings. Seeing a group surrounding one of the leading musicians of the country, let us suppose he approaches to listen. What does the layman hear? Emotional comment of the familiar type? Nothing of the sort!

"Did you notice how effectively the trombones were brought in at —, etc.?"

This is the type of criticism the layman hears.

So it is when we listen to serious discussion of architecture. It isn't the little emotional adjectives that pro-

BROADER ASPECTS OF THE PLAN

claim real appreciation, nor is it judgment founded merely on good taste; for good taste, while by no means negligible, is, after all, somewhat of a negative sense, and exercises itself quite as often by the recognition of the omission of redundancies as upon the active appreciation of more positive qualities. Now, it is impossible to recognize in architecture these more positive qualities without some knowledge of what constitutes a good plan, because, as we have already pointed out, the plan and the design of a building are not two independent elements, but are two closely related aspects of the whole mental operation. It does not follow, of course, that a good plan necessarily produces a good design, but, broadly speaking, it may be said: a really good design is impossible without a good plan. The outward aspect of a building must be related to something, and the only thing it can be related to properly is the plan. The massing of the structure here, the grouping of windows there, the picturesquely broken skyline with its roofs and gables and dormers-all are mere theatrical shams and elements of a fictitious frontispiece, if they do not spring from and express the internal structure and arrangement of the building. Unless the Owner, therefore, is capable in some degree of reading and interpreting the plan which the Architect provides for him, how can he really judge and appreciate the architectural value of his home?

What constitutes a good plan? If this were a treatise on architecture most of the book would be devoted to answering the question. As it is, only a few rough indications can be given in addition to those set forth in previous pages.

A dwelling is primarily a set of apartments connected by a system of what we will call "lines of communication"— —that is, hallways, stairs, passages, and the like. In a good plan the apartments must be placed so that they shall be properly related to one another, and so that each shall oc-

cupy its own most suitable position in regard to aspect, sunlight, and so forth. But the lines of communication must also be logically arranged, otherwise the plan will be one of confusion. Just as pedestrian and vehicular traffic are separated on our streets, the different classes of "travel" within a dwelling must be separated. There are, for instance, (1) the "public" traffic, and (2) the traffic of intimate guests, and (3) of the members of the household to be taken care of. There is also (4) the "service" traffic to be provided for. For each of these there must exist, if not separate lines of communication or circulation, at least lines that do not awkwardly intermingle and produce annoyance. Each hall-way, passage, or staircase in the house should, as far as possible, be devoted to a single function, and should lead directly to its related apartments. For instance, the entrance hall, or vestibule, should open directly onto a line of circulation from the "service" quarters, and onto another public line of communication that should give directly onto the reception rooms or other most public apartments of the dwelling. Neither of these lines of communication should pass on its way any of the more private rooms of the house nor any of the more private lines of travel. To take an extreme case, one can easily imagine how inconvenient it would be to have a bedroom or bathroom opening onto the visitors' or public line of communication. Beyond the visitors' line of communication must be developed those other passage-ways that lead to the library, den, dining room, and the other apartments conected with the intimate private life of the householders. Similarly, the passageways upstairs must be treated on the same logical plan, so that servants, guests, and family are not inextricably mingled in their going to and fro.

It will be seen easily from this that a plan cannot be laid out in a purely arbitrary manner, or by dealing with

BROADER ASPECTS OF THE PLAN

only one set of conditions. Join to these considerations the necessity for the proper disposition of the rooms, already spoken of, and the Owner has some data upon which to estimate the value of the plan provided for him by the Architect, and, proceeding from the plan, he can readily step to the outside of his house with a full understanding of the fact that the exterior design also cannot be a merely arbitrary piece of draughtsmanship. There will be, or there ought to be for him, a visible reason why windows go here or there, why roof and mass are as they are. He will understand that that particular wing of his house is where it is because in a well-studied plan a kitchen is always sufficiently isolated from the living rooms to prevent the penetration of odors from cooking, and a pantry is located between the kitchen and the dining room for convenience in serving, and a dining room usually is placed to receive the morning sun. dormers are where they happen to be in his home because the bedrooms are logically placed so as to be convenient to bath and toilet rooms; the well-lighted halls and staircases have necessitated definite openings of a definite size, and so on throughout the house.

There are certain matters of detail which it may be proper to touch upon here. The Owner will probably find them all in a good plan, and if the good plan is his, appreciation should not be withheld.

In a well-planned house the cellar is not regarded as an apartment of no consequence. It is, in fact, one of the important rooms of the house, one that greatly concerns the comfort and health of the family. It is, therefore, not built so low as to exclude free standing room in all parts—under beams, water and heating pipes. It is carefully constructed so as to be absolutely dry under all conditions of weather. It is well lighted, both by large windows and artificially, the control of gas or electric lights being placed at or near

the head of the cellar stairs, so as to be accessible without the necessity of having first to walk in darkness down a narrow and deep flight. The stairs are, in fact, as important, so far as practical use is concerned, when they lead to the cellar as when they go to an upper floor. The same is true of steps which lead from the "outside" into the cellar. building the floor above the cellar, too much care cannot be taken to make it tight, because the handling of coal and ashes is sure to raise a very disagreeable dust, which will readily penetrate to the living rooms above. When hot air is the heating medium, the dust nuisance is apt to make itself felt even more; but here again a simple precaution in the furnace, known as the dust flue, will guard against it. In planning the cellar, great care must also be taken in regard to the position of coal and wood bins. They should be placed convenient to the heating apparatus, and should be provided with chutes for the delivery of supplies from the exterior. Pits for the reception of ashes, with chutes leading from every fireplace in the house, should also be provided in the cellar. This simple device obviates the carrying of ashes through the house and consequently makes for cleanliness.

Amply, but not extravagantly, lighted living rooms are characteristic of good planning. While, in general, it is better to have a room rather too brilliantly lighted than not enough, there is also an economical limit to the size of windows. When such openings occupy very much more than an eighth of the wall surface of the room, it becomes difficult to heat the air to a comfortable temperature. This is readily understood when one considers that it has been computed that one square foot of glass surface is equivalent in its cooling power to about ten square feet of wall surface, and that it is frequently necessary to add to the amount of heating surface fifty per cent or more to counteract this cooling effect.

BROADER ASPECTS OF THE PLAN

In the small suburban home, where most of the rooms are generally too small to accommodate such large pieces of furniture as wardrobes, it is very desirable that ample closets be provided; also that these be so located as to permit their doors to be opened without conflicting with other doors or with necessary furniture in the room.

In planning bedrooms, it is important that they should be not only of sufficient size to contain the necessary furniture, but especial care should be taken to locate doors and windows so as to allow for its proper placing. While in general it is undesirable to sleep in overheated bedrooms, it is desirable to have, for emergencies, in all upstairs rooms of the suburban home some auxiliary means of heating. A fireplace or gas log in a sleeping room will give a welcome cheer on a damp spring or autumn day. But the bathroom, above all, needs to be a large, well-heated chamber. The practice of making this room just large enough to contain the fixtures strung out in a line against the wall is not an evidence of good planning. The Owner should not sanction a small bathroom of which the water-closet forms part. That fixture does not properly belong to a bathroom, and the extra space, or the money devoted to a separate compartment (it need be no more), will never be a source of regret.

The kitchen is the room in the home which especially concerns the lady of the house, and offers the Architect an opportunity to exercise his best skill in planning. Usually, all the thought that is given to this room consists in providing sufficient room for the range, boiler, sink, and the other kitchen equipment, without any particular regard for the way in which these fixtures are to effectively and comfortably serve their purposes. In this room, as in the bathroom, there is a considerable opportunity for improvement. Two kinds of work are performed in a kitchen: (A) the

cooking service and (B) certain general household services. These functions should in some measure be recognized and separated from one another. The cooking should be relegated to a comparatively narrow, well-ventilated apartment—a species of wide hallway, with stove, sinks, etc., at one side or at one end, and the walls arranged with shelves and

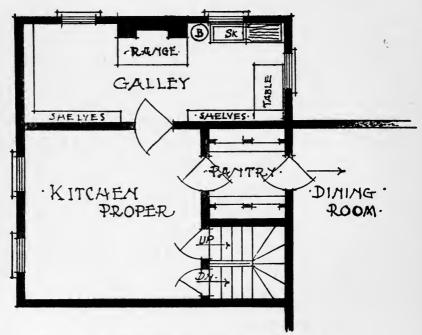


Fig. 100.—A suggestion for planning the modern kitchen.

rows of hooks for cooking utensils. In other words, the cooking division of the kitchen should resemble much more closely than it does the "cook's galley" on board a steamship. In these floating kitchens everything is gathered around the chef's hands. In most cases the space is small, yet several meals a day are provided, often for a great many hundred people. Special pains should be taken to make this compartment as cool and as light as possible. It should be

BROADER ASPECTS OF THE PLAN

particularly well ventilated. Of course, it can never be rendered as cool as a palm garden so long as the range is in use, but by separating the cooking from the rest of the work done in the kitchen, the kitchen proper will be rendered in every way a more habitable room. Moreover, this separation makes for cleanliness. (See Fig. 100.)

While improvements that are most desirable in a city house are often entirely out of place or useless in a country home, there is one, however, that obviously recommends itself: every house should be provided with a dumbwaiter running from the cellar or first floor to the floors above, unless, indeed, the rooms be all distributed on one floor. It need not be very large or costly in order to save the housewife and her domestics a great many steps. It is better to spend money upon a labor-saving device like this, than upon some "fancy" piece of furniture for the parlor.

One of the most noticeable differences between the suburban homes of Northern Europe and those of the United States is the almost total absence of verandas in the former. The American is a fresh-air-loving individual beyond measure; in fact, many of our suburban homes carry the treatment of this feature to such an extreme that we are prompted to call attention to it. "Do not shut out the sunlight from your rooms by long and deep verandas"—the band-stand form of veranda is a better type. This can easily be provided with wire screens for the summer and with glass for the winter, and can be so constructed that it will be a comfortable outdoor sitting room.

After all, the chief distinction that a plan can possess is unity of conception, and to insure this in the building of the home the Architect should be acquainted, as far as possible, with the Owner's future as well as his immediate requirements. He should plan the *whole* home, even though the

Owner may not be able to afford at the time to build the entire establishment. The Architect can then advise his client intelligently, so that when the time comes to resume the execution of the uncompleted part or parts, he will find these taken into account in the design. When built they will be integral parts of the home, conforming to it not only in appearance but in availability, instead of being "alterations" that plainly reveal their subsequent addition. Architects are so frequently called upon to enlarge houses which they have designed, that this recommendation is of signal importance to the Owner. It has every virtue to recommend it; saving of time and expense as well as affording the advantages stated above. In fact, it is one of the most important recommendations that the authors can make to the home builder.

CHAPTER XII

THE NATURE OF DESIGN

T is a very much easier task to discuss with a layman the plan of his home than to say something that will enable him, even remotely, to comprehend the meaning or appraise the value of its design. Yet, no doubt, it is this very matter of the design about which the Owner is most desirous of being informed. "Is the design which my Architect has provided for me really good? If it is admirable, wherein do its excellencies lie? What constitutes a good design? Why is it Undoubtedly these questions, or others like beautiful?" them, are the questions one must face or avoid by avoiding the layman entirely. A wise writer would dismiss this part of his theme very much as a judicious parent dismisses interrogations on difficult or delicate subjects, raised by too precocious and inquiring children. The fact is, the moment we enter upon a discussion of "design," or even of any particular design, we involve ourselves in the intricacies of philosophy and start on a road that leads to the land surrounded by the mists of hypothesis and the fogs of conjecture. Nevertheless, people will continue to judge buildings, pronouncing this one good and that one bad, without so much as a suspicion that their judgments imply a more or less complete system of æsthetics. They are like our good friend, M. Jourdain, who had no idea he had been speaking prose all his lifetime. Clearly, however, the moment we adjudge excellent the design of a building, we must be ready to state the reasons for our appreciation, and these reasons,

in order to be justified, must derive ultimately from principles and general conceptions, and these again—well, when we have reached this point we shall find that few if any of these "fundamentals" are self-evident, authoritative, or accepted. The doctors disagree! For centuries they have been arguing as to what Beauty is, but, after all, little is settled. We may say this particular building—for instance, the Parthenon or Amiens Cathedral or St. Peter's—is beautiful, but where is our standard of Beauty? It has not been established by Congress or by any other body. It is not, in any authoritative sense, "fixed." And, remembering this, we cannot forget that it is not so very long ago that all educated men agreed in denouncing the Gothic style (the style in which so many of our now admired cathedrals were designed) as "barbarous." Moreover, this shifting of judgment, we must recall, is not confined to opinions that the world holds about Architecture, but may be paralleled by great historic contradictions in Literature, Music, and the other Fine Arts. In all of these matters we are as a lot of geographers who would make maps and tell of distances without having decided upon any single known unit of measurement.

Undoubtedly this lack of a standard of Beauty is of as little real importance to the average man as is the lack of any other fundamental standard. His purposes are "practical" and approximate. He will continue to the end to say "this is right" and "that is beautiful" by the force of his feelings, and by the justification of his education and traditions. If we refer to the subject here it is merely in the hope that the Owner will never forget that in judging Architecture there exists no absolute yardstick by means of which he can accurately measure results—and dogmatically thrash the fellow who differs from him. We believe it is important for the Owner to keep this in mind, because (as

THE NATURE OF DESIGN

we trust the reader has realized) the purpose of this little book is to beget a slightly sounder popular view of the Architect and his work. Should we arouse a surface interest in the noble art of Architecture that interest cannot be carried very far before it encounters matters of opinion and questions of judgment from which bewilderment may easily ensue. The plight of Architecture with the layman is very much sadder than is the case with some of the other arts— Literature, for example. Judgment about the books we read is, perhaps, not a whit more fundamental, but it is infinitely more "current," it is more frequently revised, reedited, so to say, and put again into popular circulation. More of it has passed into our daily tradition, and has acquired thereby the force of unquestionable authority. After all, is it not this very Authority (this easy standard) we respect more than the difficult, perplexing judgment of the Reason? For example, the average reader is convinced that, say, Wordsworth, was a great poet because "everybody" says so, although it is safe to assert that few average readers would care to read more than one half of Wordsworth's verses. For Architecture there is no similar insistent voice of tradition, no constantly repainted set of signposts maintained by Authority for the guidance of the wayfaring man. This state of things exists because Architecture is not with us, in any real sense, a "popular" art. It is a part only of the scenery of everyday life, like the trees of the town, the waterworks, or the cemetery. It is as little studied as the botany implied in the trees, as scantily understood as the hydraulic engineering involved in the waterworks, as dimly felt in the reach of its significance as are the mystery and solemnity of "God's Acre," along the winding pathways of which the idle visitor saunters on Sunday. If this should seem too sweeping a statement, compare the quality of the popular appreciation bestowed upon, say, the new court

house, and the big electrical machinery of the new trolley power station. Is there any essential difference in the admiration which they respectively elicit?

The foregoing may sound extremely discouraging to the Owner. He may well ask himself the question: "If among the learned there is confusion, and among the public indifference as to the standard and value of Architecture, is not the subject one I had better leave alone? If I am a comfortable heathen and Philistine, why should I not continue to remain such instead of trying to enter upon a profitless path to salvation?" The authors of this book would like to create within the Owner some state of mind similar to this, in order to correct it, and in correcting it to feel sure that the Owner had, as it were, experienced for himself both sides of the case, for, as in most other things, there is another side, and this side is much more akin, as one might imagine, to the Owner's habitual line of thought.

To the Owner's question: "If there be no arbitrary or natural standard of Beauty, to what source may I turn for enlightenment, upon what may I rely?" we answer: "Upon yourself." This assurance will need some qualification, which will be given later on; but, after all, we shall not get away from yourself as the only seat of authority for you in matters of Beauty.

The most satisfactory definition of Beauty that we know of is this: "Beauty is pleasure regarded as the quality of a thing." (See Santayana's "Sense of Beauty.") In other words, whenever you obtain real, indubitable pleasure from anything, and so doing you regard that pleasure as the result of something inhering in the thing itself, as involving no perception of utility or value for other purposes, you may be sure that the pleasure you receive is the pleasure derived from Beauty. Take, for instance, the beauty of a landscape. We experience pleasure therefrom. The pleasure we derive

THE NATURE OF DESIGN

is not one of possession, of utility, or of appetite, but is, so to speak, lodged in and belongs to the scene which affects us. We perceive that this beauty is an inconvertible term; we cannot change or transmute it into anything else. The same is true of a beautiful picture. It affects us in a pleasurable manner. That which affects us in this manner is the quality of the thing itself. We might appreciate the picture because it is valuable or rare or ancient, but these are not

because it is valuable or rare or ancient, but these are not inherent, intrinsic qualities that we can regard at all as lying, so to speak, solely within the picture.

Keeping this definition in mind, the Owner will see that for Beauty the test is always the same: "Does the thing actually please you?" If it does, your taste is real. Don't let anyone persuade you out of this satisfaction. But be sure your feelings are real, sincerely your own, and then fear not. The greatest connoisseur in the world can in the end say nothing more than this: "That particular object is beautiful because I derive from it pleasure regarded as the quality of the thing itself." If you cannot derive any pleasure from one of Wagner's operas, from one of Browning's ure from one of Wagner's operas, from one of Browning's poems, from a stained-glass window of the Middle Ages, from a Byzantine fresco, from a piece of ancient Greek statuary, from an Egyptian temple, then for you those things are not beautiful, and if all people felt as you do they would not be beautiful for anyone.

At this point the Owner will no doubt raise the question:

"But can I wholly trust myself? The objects that impressed me as beautiful last year do not so much impress me to-day, and things that I delighted in five or ten years ago no longer give me any pleasure at all. Just as I am older than myself of the past (and therefore have greater experience), so there are people who are older than I am and have had greater experience. And if these people tell me that this and that is beautiful, whereas this and that is not admirable, should

I not trust them, in the full and perfect confidence that I shall come round finally to their way of thinking and feeling?" Undoubtedly the development of our faculties, and with them our appreciation, moves along certain broad welldefined lines. Some day, let us hope, we shall have a real psychology of the subject. In the meantime, however, we know that the child who delights in reading fairy tales cannot possibly be made to understand that some day he will discard them for Robinson Crusoe and Jules Verne. In this second stage he will be equally blind to the pleasures that lie hidden for him in Dickens, Thackeray, or George Eliot. Furthermore, it will be necessary for him to see a good deal of life and to have experienced much himself before he will be prepared to profoundly appreciate Shakespeare or Dante. Nevertheless, one may safely prophesy that, provided he persists in his intellectual development, he will travel, if not along the same road, at any rate in the same direction that all other persistent travelers have taken. We see, therefore, the judgment of Authority is only valid for our Owner in proportion as it anticipates his own experience. Beauty is not for him until he arrives. He may be assured that there are beautiful valleys and hills at some point below the horizon. The beauty of this scenery has no value for him until he reaches it. In the same way the beauties of art that he may reach by and by correspond to nothing within his experience until, like John at Patmos, he beholds. The Owner, therefore, should give ear to Authority merely as he heeds the directions and warnings of travelers who have gone before him. If he disregards counsel he is sure to make mistakes, but let him not confound the tales of a traveler with his own real experiences, or treat one as of equal value, for himself, with the other.

CHAPTER XIII

TRUTH AND BEAUTY IN DESIGN

THE Owner, therefore, may accept without hesitation his own honest, real sense of pleasure derived from a building. If he regards this pleasure as a quality of the building, something that inheres in the structure itself, he need have no hesitation in calling it Beauty of some degree or other. He will understand that other people may very properly not agree with him. He will realize that he, himself, will in all probability amend his judgment as a result of experience, and therefore he will attempt to anticipate himself by paying close attention to the well-considered judgments rendered by Time and the Judicious.

The moment the Owner begins to be interested in the judgments Time has rendered, as soon as he commences to talk with the Judicious, either directly or through books, he is sure to encounter certain ideas which he will find constantly applied one way or another as tests of merit. Suppose, let us say, that the Owner has asked one of the Judi-

cious to pronounce upon the merit of the new home.

"Meretricious," declares the judge. "Those arches, you see, are not really arches. If left standing by themselves they would fly to pieces; there is an iron lintel embedded above them somewhere. Those columns, I am sure, rely for their strength upon iron posts inserted through the center of them, and as to that half-timbered work, I doubt very much whether it is anything more than a mere decorative front."

"But," you demur, "that colonnade is very attractive to me. Is it not well-proportioned? And as to that half-timbered work (if that is what you call it), it is picturesque, and its surface of alternating streaks of cement and timber has a charm for me that I cannot deny."

has a charm for me that I cannot deny."

"Yes," says the judge, "I can allow that superficially it is not without merit; the design has been skillfully managed, and, as you say, it possesses a charm and picturesqueness, but it is all of surface value. The building is a sham, and it therefore has little or nothing to do with Art."

At this the Owner may well lose his balance. His Architect, a well-known practitioner and a man of apparently some conscience, artistical and otherwise, supplied him with the design, and now that the design has been constructed he, the Owner, cannot deny, despite the verdict of the Judicious, that the building gives him pleasure regarded as a quality of the building itself, and that according to what we have just been saying is Beauty. What is the poor Owner to do? Were he to continue to discuss the subject with the Judicious he would be told that our Architecture, if it is to amount to anything, must be veracious. We must not construct our decoration or decorate our construction. Every working member of a building-a column or a beam, for instancemust be a real working member. Columns, if we are to use columns, must be adequate supports for some essential and integral part of a building. We must not permit sham gables or sham arches or exaggerated columns or roofs, or false construction of any kind whatsoever if we are to have good Architecture.

Having been assured of this by one member of the Judicious, the Owner may apply himself to some other expert of that fraternity—a working architect of repute, let us say. The second authority will differ profoundly from the first. He will probably tell the Owner that Art exists "for Art's

TRUTH AND BEAUTY IN DESIGN

sake," which will puzzle the Owner, whose mind will be as clouded as ever when he hears that the use to which a column is put has nothing to do with its beauty. The outlines of a vase would not cease to be lovely with every transfer of the vase to some new sort of utility, proclaims the expert. Used as a beer pitcher (for which its form is not very suitable) it will be every bit as much a thing of Beauty as when used to hold a few choice roses (for which its form is admirably adapted). If a colonnade is beautiful (this class of critic will say) it is beautiful, and the matter ends there. The question of the embedded iron beam does not affect its particular beauty. The half-timbered construction is picturesque if it is picturesque. The quality of picturesqueness has nothing to do with some rule of construction. Suppose the dormers are too large for the illumination of the rooms, or the roof is higher than structural requirements really demand! What of it? Beauty and Truth are not identical, in spite of what the poets sing. For if Truth is Beauty, then the two things are the same, and the multiplication table becomes one of the most beautiful things in the world.

The Owner, when he ponders these matters, may feel that plain common sense rebels against the statement that Truth is Beauty, provided we use those words in anything like their ordinary signification. Those who talk so are employing words in a vague, poetic manner. Our sense of Beauty is, after all, something fairly definite to all of us, although we cannot define it. As in the case of Conscience and Morals, while we cannot speak for other people, we are in no doubt as to the meaning and reality of these things for ourselves. No! Truth, Fitness, Utility, none of these qualities is equivalent to Beauty. A building is not beautiful because it is appropriate to the site upon which it stands or the purpose which it serves. Any particular architectural element (column, arch, or what not) is not beautiful

because it is structurally truthful or sufficient. Architecture is not engineering, we were almost going to say that it is not even construction, but to show this we should have to go further and explain, and for that there is no space here.

However, precisely as the authors feel sure they can trust the Owner to recognize that the sense of Beauty is something not to be confused with anything else, they are convinced that no argument will induce the Owner to accept as entirely satisfactory any element of false construction, provided, of course, he is conscious of its existence. A column that carries nothing, a staircase that leads nowhere, a window opening that is a sham, will not please him. He is not always aware of the possible tricks and falsities of architecture. Even when pointed out to him he may not at first perceive their enormity. Indeed, it will probably need education to convince him of the crime committed, but education is part of this process of appreciating Architectures Returning, therefore, to the design of his house, the Owner is almost certain to wish that that colonnade of his were really what it appears to be, that that roof were really demanded by the facts of the case. As he considers the matter his mind will probably wabble between appreciation of the form that delights him and disapproval of the sham construction of which he is now conscious. Perhaps at this point he will be ready to realize the real circumstances of his position, which are these: There are, within his mind, two clashing notions or ideas, and it is this conflict that robs him of complete satisfaction. Clearly our appreciation of anything, to be complete, must be undisturbed; our sensations, if they are to reach their maximum, must be confused by no other sensation. We cannot shut out the enemy and then enjoy the full satisfaction of the moment if we hear him hammering at the outer gate. This is the reason why the Architect who makes for us a beautiful design must also

TRUTH AND BEAUTY IN DESIGN

make it veracious and fit. He must satisfy all the requirements of Truth as completely as he must satisfy all the requirements of Beauty. He must absorb and harmonize every element of his work, so that there is not anywhere left a discordant residue. The more we study the building the more we must find the work at one with itself. It must be appropriate to the site, it must be fitted to its purposes, it must be constructed with veracity, every feature of the plan and design must be in perfect harmony. Nothing is then left to harass or thwart our enjoyment. The beauty of the design can then assert itself without fear of disturbance from any quarter. As the Owner steps outside his new home the first thing for him will be the sensation of pleasure which he receives from the structure. He will then be impressed by the details, the arrangement of the openings, the massing of the building in dominant and subordinate parts. The big window placed in that particular position necessitated by the plan within, fits into the exterior design as though it were an inevitable part of the picture. If it seems to him that it could not be placed anywhere else without impairing the beauty of the design, it is well. Similarly with the porches, the chimneys, the verandas, the dormers, and roofs: all are unified by the design, all are appropriate to the materials used, all correspond exactly to the facts of structure and function. Beauty is there as Beauty, and Truth is there so that it shall not conflict with Beauty.

CHAPTER XIV

DECORATION AND DESIGN

WORD or two may be added in regard to decoration. Probably all decoration is derived from some form of construction, or from some original that once possessed a representative meaning or signification. For instance, at one time the Egyptians constructed their walls of mud or clay; it was the material readiest at hand. Its plastic and unstable qualities made it necessary for them to build these walls very much wider at the base than at the top, so that they received an inward slope, very much as do embankments of earth or retaining walls which are called upon to resist pressure across their height. But in the course of time the Egyptian began to use stone for his monumental buildings, and he did not alter the form of his walls when he came to use the new material. He was pleased with the old form, so he preserved it. The stone walls of many of the great Egyptian temples slope or "batter," as it is called, precisely as did the older mud walls.

To take another example: It is supposed by many competent judges that Greek stone architecture was derived from an older wooden architecture, or that the Greeks at first adopted in their masonry structures many of the forms that properly belong to wooden buildings. The later-day Greek masons quite forgot how much they owed to their carpenter predecessors, and forms that were constructively real to the carpenter were retained by the mason as decorative features to tell the tale of their origin.

It is so with our surnames. They were all at one time

DECORATION AND DESIGN

literal or descriptive names. We speak to-day of the Smiths, the Taylors, the Wainwrights, the Browns, the Greens, forgetting that at one time these were not conventional names—very much as we forget that the origin of our alphabet was pictorial or hieroglyphic. Facts, or what were thought to be facts, preceded fable, and history, or what was thought to be history, preceded myths. In Architecture, likewise, construction preceded decoration. In time the elements of construction came to be "degraded" into elements of decoration.

A multitude of examples of this process could be adduced. We can easily imagine that whenever the decorator borrowed from the constructor (if we may separate the two) the constructor raised a vigorous protest, charging the decorator with misappropriation, false construction, lack of veracity, and all the rest, just as the imaginary advisers of our Owner told him that the arches and the columns of his home were "wrong." The decorator really does not devise very much for himself. He has always been a great adapter and borrower, and whenever he has plundered from the constructor there has been conflict. The decorator, however, is not a man that can be converted from his ways. He continues to plunder and adapt. When once he has stolen anything he continues to use it and modify it until the world has turned its face in other directions, forgets the ancient construction, and comes in the end to applaud and justify the thief.

Our Owner, therefore, is not likely to find (in the last analysis) that the decoration of his building is all decoration, and the construction all construction, and both in complete harmony. There will be transitional elements, and these forms will raise debatable questions. Much depends upon our point of view. We can quite see that were an ancient Greek to return to life he would probably be much more sensitive than we are to the constructional origin of

our pedimented little window frames representing the gable end of a temple. For the most part these fronton windows do not even remind us of anything constructive. Therefore, if they are beautifully designed and beautifully placed for us on our buildings, there is no contradictory fact to rob us of the full pleasure of Beauty they afford, as there well might be in the case of our resurrected Greek. Again, if by and by we should forget the constructive realities of halftimbered construction, there would be nothing to interfere with our enjoyment of any beautiful façade that was constructed of what we would now call imitative or fictitious work. Of course there is much virtue in this "if"; nevertheless, we may see the slow transmutation of constructive facts into decorative elements. Time and the forgetfulness of men thoroughly justify the translation. We have herein the reason why a great deal of whatever popular appreciation of architecture there is, is at variance with expert opinion. The expert has a great many facts in his mind that have nothing to do with the æsthetic. He knows, for instance, that that particular form of Gothic foliation belonged only to buildings of the thirteenth century. Therefore he objects to finding it mixed in the same modern building with forms that he knows did not arrive until late in the fourteenth century. To the public, however, if the building is beautiful it is none the less beautiful because of this historical solecism, though we can easily understand that the appreciation of the archæologist would be disturbed by conflicting perceptions, which never would or could disturb the less educated connoisseur. In like manner the Architect who is more engineer than artist will bear heavily in his judgment on the "facts of construction"; whereas the Architect who is more inclined to the æsthetic side of his work will be more disposed, while disregarding the constructor's judgment, to preach "Art for Art's sake," and the like.

CHAPTER XV

PLAN AND DESIGN

TF it is a rare thing to hear our friends, in discussing their new home, lay particular stress on its plan, on the ingenious manner in which the Architect has met their requirements by making the rooms so convenient of access and so livable, it is a common occurrence to hear them talking about the design as "up-to-date" or "original," or, if not that, as English or Old Colonial. It is their firm belief that they have but to express a preference for some particular design and it immediately becomes theirs. They picture the Architect as a man who, after meeting their requirements in a well-studied plan, has simply to go to the storehouse of tradition and bring forth the design that they fancy. But this is not the process of evolution in designing. We have already said that, in Architecture, it is constantly necessary to have recourse to the plan. This is precisely what the Architect does from the beginning to the very end of his The minute he begins to make the plan he begins to determine the design of the house. He is constantly looking ahead to matters of design which he establishes early in the problem and leaves to be worked out in detail when he can get to them. As he decides definitely upon the arrangement of rooms and passages, staircases and fireplaces, he at the same time fixes certain very definite matters of design. These internal features of the house are no more absolutely fixed in the Architect's mind than is the design which they involve. The plan and the design are

relative matters, and it is generally necessary for the Architect to make mutual concessions to secure the most satisfactory results.

To illustrate the relation between plan and design, let us refer to the house shown in plan in Fig. 105 with the exterior views, Figs. 10 and 11. Neglecting for the time the onestory tea house at the rear, we see in Fig. 10 an arrangement of windows which at first glance seems rather puzzling and perhaps somewhat fanciful. Yet these windows, as parts of the design, must be related to something—the plan. And they are. The first floor windows on the front seem natural enough placed on each side symmetrically. But why the small window on the side to the right? Let us consult the plan (Fig. 105). What do we find? The windows under consideration serve to light the parlor, which is so designed that the whole weather side of the room is taken up by a species of structural decoration in the form of a sideboard, which does not permit of a large window such as we see on the front from which the room receives practically its entire daylight; therefore the small window. The other room on the front, the library, is similarly situated for light, depending here again on the large windows of the front for its sunlight. The high window over the bookcases on the outside wall of this room unfortunately does not show in either of the exterior views. The placing of the secondstory windows seems even more fanciful than on the first floor. In this case the external arrangement would be explained by the second-floor plan, which is not at hand. The first floor will serve the purpose, however. Here the loggia which occupies the central position on the front over the entrance is not only the veranda of the house, but its windows behind serve to light the hall and staircase, which would be dark but for this source of illumination. clever way in which this loggia has been divided by posts

PLAN AND DESIGN

into five bays shows how complete has been the Architect's regard not only for external appearance, but for the integrity of the plan. It will be observed that this feature has been admirably brought into relation with the windows below to preserve the harmony of the design. All this information is revealed by the plan, and was duly considered by the Architect in making his initial scheme before he gave any thought to external details. The scheme of external composition was there; the main lines of the design existed in the designer's mind from the beginning, and from these he could not depart without abandoning the plan. Given the same plan, two designers would be bound to arrive at the same external design up to this point. This much is an expression of the facts in the case. A marked deviation from them could have no other effect than to stultify the idea, the plan and, in fact, the whole scheme of the house.

Beyond the pale of this integrity in design there is the boundless field of choice. In that field it is not so much a question of consistency and honesty in the realm of utility as of a choice of judicious and admirable alternatives in combining, arranging, and emphasizing the bald facts of the scheme. For example, it was not obligatory on the designer to go to Japanese Architecture for the source of his architectural expression, and, having done so, he was not compelled to select from that architecture the forms which he has so admirably adapted to the needs of an American suburban household. The forms which he has chosen he has handled in such a way that they lose their identity as Japanese forms, and fall naturally into their places to produce the effect which the designer sought.

Recurring then to the question of plan and its relation to design, we may sum up the matter by saying that a plan determines a design to the extent that it fixes the general ends which the design is to meet, leaving it to the choice of

the designer to meet these ends in an artistic manner. For example, there was no reason why the designer of Fig. 10 had to treat his dormer as he did, making one large eyebrow feature in the roof. He was perfectly free to adopt a simpler treatment, or he could have divided the one large feature into several smaller ones. He simply exercised his choice. combined, of course, with a thorough knowledge of design. Again, no chimneys are visible in Fig. 10, while the plan distinctly shows two lines of flues. By consulting Fig. 11 we find that the chimneys have been carried just as high as it was necessary for the proper draught, and are hidden in the front view (Fig. 10) by the high ridge of the main roof. They have been ignored as undesirable features in the design. But why does the Architect arbitrarily magnify one feature and suppress another? Obviously to gain a certain effect. But how does he know how to obtain this effect? Are there no laws of procedure by which he is guided in thus making much of one thing and slighting another?

It is, of course, quite impossible to explain to the reader exactly how a given design has been made, and if such an explanation were possible it would require the training and experience of a thoroughly trained architect to understand it. More important for the purpose in hand is it to help the reader to look for something in a design and really see it. Just as the design is related to the plan, and, as we have explained, governed by it to a certain extent, so design is related and governed by matters which are wider than the limits of the particular house under consideration. These matters are principles of the broadest significance and application in all matters of fine art, whether of Painting, Sculpture, or Architecture.

Fig. 101.—This illustration is offered as a suggestion of a type of plan for a small house. In this house visitors whom it is not intended to introduce into the family circle are received in the reception-room at the entrance. This arrangement, though not in common use, cannot but be a very good one, preserving, as it does, the privacy of the home for the family and their guests whose comfort should be paramount. The construction shown in the diagram is of a stone house, but the same plan might very well be reproduced in wood at a more moderate sum.

· SCALE OF FEET.

15 20

30

·WAIK.

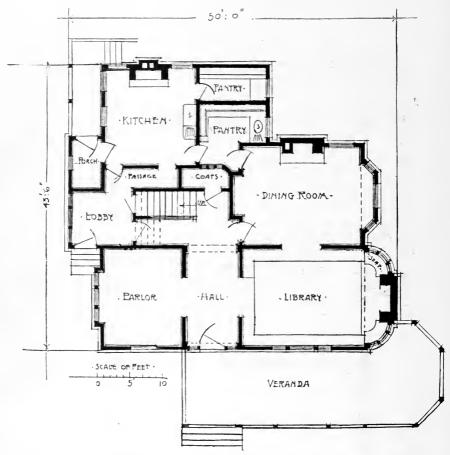


Fig. 102.—We show in this diagram the plan of a larger house than that on the preceding page. The parlor in this plan serves the purpose of a reception-room. The plan is compact and workable.

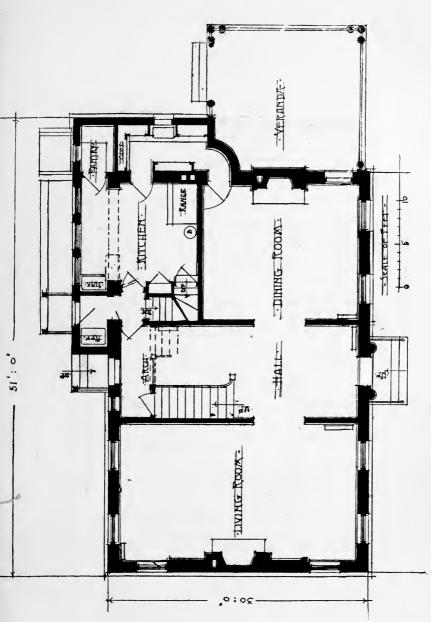


Fig. 103.—The simplicity of this plan gives an erroneous impression of smallness. The living room is larger which the family live. The hall would make a very fair-sized picture gallery, being ten feet wide and about than it is customary to make it in larger houses. In this case it is really what its name denotes, a room in twenty-five deep. The suggestion of the plan is one of hospitality.

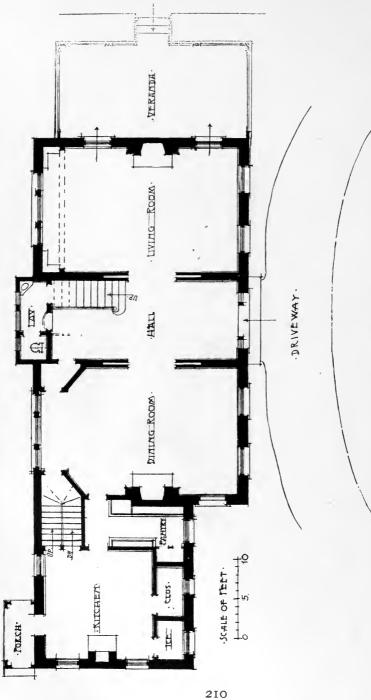


Fig. 104.—The extended type of plan giving the "swell" effect. In its main lines there is little to distinguish it from the preceding plan, Fig. 103, unless it be the greater importance which is here given to the dining-room. The hall is again spacious as in the previous example,

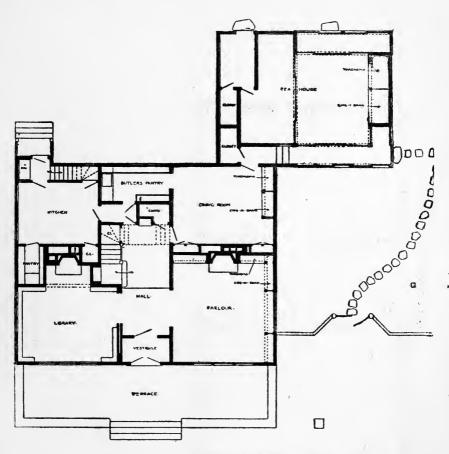


Fig. 105.—Plan of house adapted from the Japanese and shown in Figs. 10 and 11. The reader will note the Tea House which adjoins the dining-room, and which is entered also through a corridor from which a path leads to a gate at the right. The features of the plan, which have been borrowed from the Japanese precedents, have been so thoroughly adapted to the requirements of the owner that they become American in the same sense as does the architectural expression of the exterior.

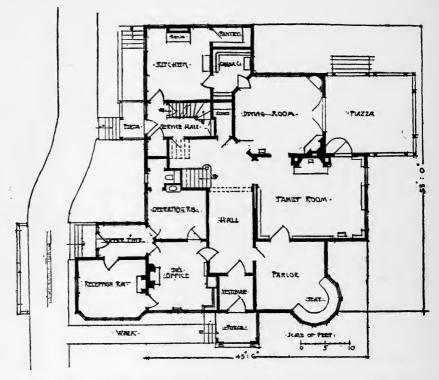


Fig. 106.—A good example of the country doctor's house. His office, reception, and work room are here treated as integral parts of his home without in any way interfering with the privacy of his family. On the side of the house there is a separate entrance for patients, who thus have no occasion to meet any member of the family and, moreover, the doctor's rooms are so arranged that coming and departing patients need not encounter one another. The arriving patient passes from the office entrance into the reception-room to await with others his turn with the doctor who holds forth in his office. If the case requires special attention the patient is conducted into the adjoining operating-room, after which the way lies either back to the office or into the office entrance, and since both operating-room and office lead directly to the entrance any possible contact of patients is avoided.

CHAPTER XVI

ART AND THE PRINCIPLES OF ARCHITECTURAL DESIGN

O design is to combine so as to form a complete and harmonious whole. A well-designed house, then, is such a combination of parts as produces upon the spectator a pleasing impression. To recognize good design it is, of course, necessary for the spectator to possess a discriminating sense for the proper and the beautiful in his surroundings. This sense everybody possesses to a certain degree. Many people there are who have it to an extraordinary degree, and who can say at a glance whether something has artistic merit or is devoid of it. Asked to give their reasons for deciding for or against it, they are unable to reply more definitely than to say because they like or dislike it. As far as the attainment of beauty is concerned, they believe it to be the result of pure accident or of arbitrary choice on the part of the designer. This explanation satisfies public interest in architecture, but not the judicious inquirer. If it is not yet possible to analyze the sensation of pleasure which an object of beauty—that is, an object which is well designed and therefore artisticproduces upon the mind, it is possible, however, to examine the psychological phenomenon of Beauty by an analytical method, especially in architecture, where we have preserved to us for comparison its entire development through many centuries. If, therefore, we were to examine buildings of different periods in different localities, we would find in them certain likenesses, solutions of recurring problems of design

which the Architect of to-day encounters as surely as did the Greek or Roman. For the Architect to depart from the established solution of these problems of design would be about as reasonable as to discard the rules of arithmetic and start anew to discover them. Even if an original solution were attempted, the result would in the end be the same as that which had been discarded. Of these solutions in Architecture there are a great many which the Architect must learn, and in designing employ in new combinations to secure new effects. These are the only laws of design which it is possible to formulate, and upon them can be founded the only true basis for the intelligent critical analysis to which even the nonprofessional may aspire. This is the "science" of Architecture. One would not contend for a moment, however, that these general principles or laws of architectural composition explain everything that is to be known about the subject of design. But it is not feasible to take cognizance in this discussion of such purely personal qualities as delicacy, grace, and refinement, because these concern only the professional; for our lay reader concrete scientific facts will much better serve to give him an intelligible insight into the complexities of design.

The modest suburban home of which we treat herein does not, of course, admit of monumental architectural design. On the contrary, such a treatment, if it were possible, would be highly undesirable, because it would be inappropriate. But if the \$5,000 to \$25,000 home cannot and should not be a monumental structure, it still offers the designer ample scope to exercise all the skill that he can command. His opportunities to display a knowledge of the principles of his art are limited only by his own capacity and by that of his clients in formulating their requirements. In judging the homes which we illustrate in these pages it is necessary for the reader to take into considera-

PRINCIPLES OF ARCHITECTURAL DESIGN

tion these two conditions are often found opposing each other. It is only fair to say also that a decision based on a study of illustrations can be but a superficial one. It will be helpful, we trust, to call attention to certain means and results which an Owner would do well to bear in mind in his study of design. We shall select for reference only those illustrations in which definite principles of design are emphatically shown.

Fig. 2 shows a simple composition of two masses in which the principle of *subordination* is admirably illustrated. It will be noticed that in the mass at the left of the picture the ridge of the roof and the eaves have been made slightly lower than in the part which contains the chimney. By this means the designer has expressed the fact that the lower mass contains the secondary part of the home.

Fig. 19 illustrates how it is possible to secure the effect of unity in a design by simple means. The effect which is desired in this bungalow is one of lowness. Notice how the surrounding grass and shrubbery has been allowed by its tallness to help out this effect. A beautifully cared for and trimmed lawn would not have been as effective.

The good effect of the design shown by Fig. 4 is due largely to the *similarity* of the roofs, as well as of masses, of the principal mass of the house and its appended porch. Even the windows are treated in clusters to reëcho the feeling of horizontal dimension for which the designer was striving. The sparse trees further assist this expression by their strong vertical *contrast*.

The independence of good design, of any style of architecture is shown emphatically by the typical American home illustrated in Fig. 12. This house, while it partakes of no particular historic tradition, owes its merit to an obedience to the principles of architectural propriety. It would require very little altering to transform it from a well-designed com-

position into a decidedly commonplace thing. One has but to picture an identically symmetrical treatment of the two gables, and the omission (if it were possible without changing the plan) of the dormer (whose side shows on the right of the view), to have a design that would possess little to recommend it. The *subordination* of the right-hand gable to that on the left, the *continuity* produced by the ridge of roof which connects them, and such apparently trivial matters, contain in reality the secret of much of the beauty in this design.

No little of current American suburban architecture is measurably free from rigid tradition and architectural usage, but a closer examination reveals in its make-up due recognition of the principles of all good design. The quality of its picturesqueness exists not in spite of these laws, but by virtue of them. Fig. 14 is a typical example which, though apparently rambling, reveals a careful adherence to the laws of architectural custom in the composition of the two projecting bow windows in the main wing of the house. Here the designer was confronted by a case of double composition, as it is called. It is a recognized fact in design that two practically identical masses or features, when placed side by side, compose badly unless they are connected by a third mass or feature. This connection is accomplished in the case just referred to by the small window in the main wall and between the projecting features. The reader can ascertain for himself by covering up this small window that, if this were omitted, the effect would be quite different and insufficient. The same problem of double composition has been solved in Fig. 16 by the use of an emphatic porch roof similar in outline and mass to the main roof. The effect in this case is very strongly accentuated by deep shadows.

Figs. 10 and 11, mentioned above, are front and rear views respectively of a suburban home at Fall River, in

PRINCIPLES OF ARCHITECTURAL DESIGN

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Massachusetts, and show how it is possible in design to adapt forms in architecture and to combine them appropriately in new and attractive ways. This house, a plan of which is shown in Fig. 105, is based upon a study of Japanese precedents, which have, however, become thoroughly Americanized at the command of an able designer. The reader must not interpret these sentiments as a plea for what architects call archæological design, a slavish copying from foreign buildings. In this latter method of designing the real requirements of the problem are, as often as not, cast to the winds to "get in" some feature which exists for a real reason in the original but is absolutely meaningless in the reproduction. This, however, is not the case in the Fall River house, which is not only attractive externally, but provides at the same time exactly the accommodation that the householder needs in this country. Figs. 8, 20, and 21 show also how an able designer can use the architectural forms of another period and country without imitation, and yet attain a thoroughly good and modern composition. Of these homes, that shown in Fig. 8 is perhaps the most successful, because it is the simplest.

Fig. 23, an English villa, though pleasing in the main, suffers from a species of indecision on the designer's part. When one begins to seek for the reason it is found in the doubtful treatment of the gable, which seems to fit badly. The designer does not appear to have been sure in his mind whether he ought to make this feature important or trivial. He accordingly made it large enough to disturb the continuity of the roof, and counteracted the effect of size by piercing it with a very small window. The attic room may have been a legitimate condition of the problem, but a more satisfactory solution could have been found by allowing the two-story bow window under it to continue without interruption through the roof to form one of three stories,

or the attic room could have been treated in a less prominent way without decreasing its dimensions, with a lean-to roof, for instance, or similarly to the smaller dormer at the right. Either expedient would have had the effect of improving an otherwise admirable composition.

In the cursory examination of the preceding homes, some of the principles of good design have been suggested merely to show the reader for what he must look in forming an opinion of a composition. The objective method will lead the reader to continue the investigation on his own account. his interest has been sufficiently aroused he will, no doubt, make his own observations upon houses that come to his notice. Nor need his attention be confined to mere external appearance, for the laws of good design have equal jurisdiction over the interior treatment of the home, of which we give numerous pictures in these pages. As has been pointed out in the chapter on furnishing and decorating the home, it is a failure to recognize the force of architectural principles in interior decoration that produces frequent disappointment in the new home. We will repeat here, therefore, that it is our firm belief that the successful home can be attained only by giving the designer supervision, not only of the groundwork of the rooms, but of their complete decoration and furnishing. The reader will, no doubt, be able to pick out from the illustrations of interiors which we give those in which such supervision has been exercised. He will notice in them that uniform earmark of good design, unity, to which we have alluded in our inspection of the foregoing exterior views. The presence in a room of this quality, which is even more difficult to define there than in a façade, will make itself more readily felt by him because he is always bound to come into more intimate contact with the inside of his home than with the outside.

CHAPTER XVII

THE IMPORTANCE OF GOOD CONSTRUCTION

CLOSELY related to the technical matters with which it has been thought advisable to acquaint the Owner is one which has been reserved, not because it is of least importance, but because the authors feel that the Owner will be in a better position to receive it after he has read what goes before. This subject is the construction of his house.

The province of the Owner does not, of course, include the construction of his house any more than its plan or its design. These are affairs strictly for the Architect, and the reason for discussing construction at all is, as with planning and designing, for the purpose of defining for the Owner the issues and enabling him to coöperate more effectively with the Architect.

One so often hears friends say that their new house is well constructed, citing as proof that the entrance hall is finished in hardwood, that the dining room has a high wainscot, that there are Ionic columns in the living room, or that there is an elaborate mantelpiece in the library. It is such matters of mere finish which attract the popular observation because they are "popular," and the prospective Owner interprets them as the acme of good construction. To the initiated they are nothing more than the "selling points" of the builder-made house. We fear it will ever be with extreme reluctance that the Owner will renounce expensive finish in favor of good construction. But he need not be surprised when he finds that the Architect is advising him

above everything to pay for a sound structure, and that it is of first importance to make sure that the timbers in the frame are of the required dimensions and that they are properly spaced and joined, that the foundation walls are carried down below the frost-line, and that the stones or bricks that compose them are properly bonded—in short, that all the "rough work" is honestly performed by the Builder. An Architect knows full well that an Owner may be delighted at first by a fine polished maple floor or handsome paneled oak doors, but that he will surely be disappointed after the first season when he sees that the floor has become uneven, opening up in large cracks and drawing away from the baseboard, under which the winter wind blows; or when his beautiful paneled oak doors begin to swell and refuse to obey orders. The Architect knows that these things will happen if the hidden and apparently unimportant structural parts are not properly built. The Owner attains this knowledge only when it is too late to remedy matters. It is only then that the word "construction" begins to have for him a real meaning. He realizes then the meaning of the axiom that in order to build well the foundation must be good, and that what have been supposed to be essentials of good construction are but the glittering shams that are made to deceive the unwary. Yet good basic construction is equally requisite in the construction of an automobile or the making of an overcoat. A man does not buy an automobile because he fancies its fine-colored enamel, its handsome leather cushions, or its gorgeous brass lamps; nor does he select an overcoat because the velvet collar or the fancy buttons please him. He knows better. Experience has taught him that the value of an automobile depends upon the rigidity of its frame and the efficiency of its machinery, and the merit of an overcoat upon the quality of its fabric. We trust the Owner will understand when the

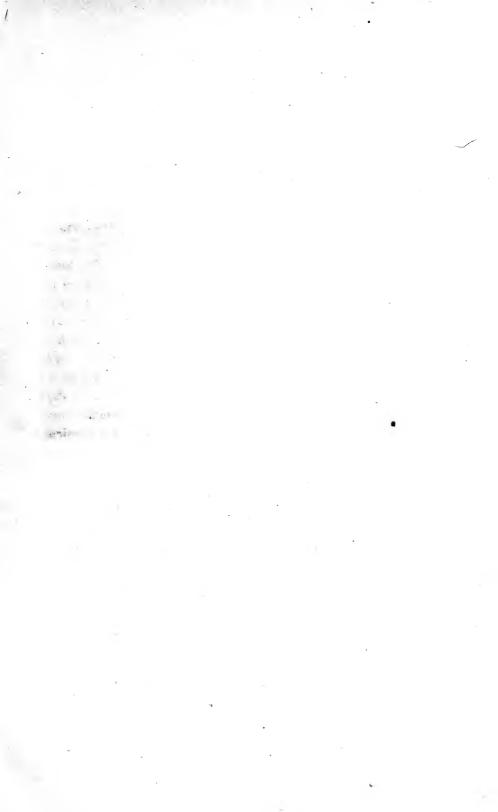
IMPORTANCE OF GOOD CONSTRUCTION

Architect tells him that if he would have his home well built he must lay more stock by the essentials of a sound framework and not be misled by false manifestations of veneer.

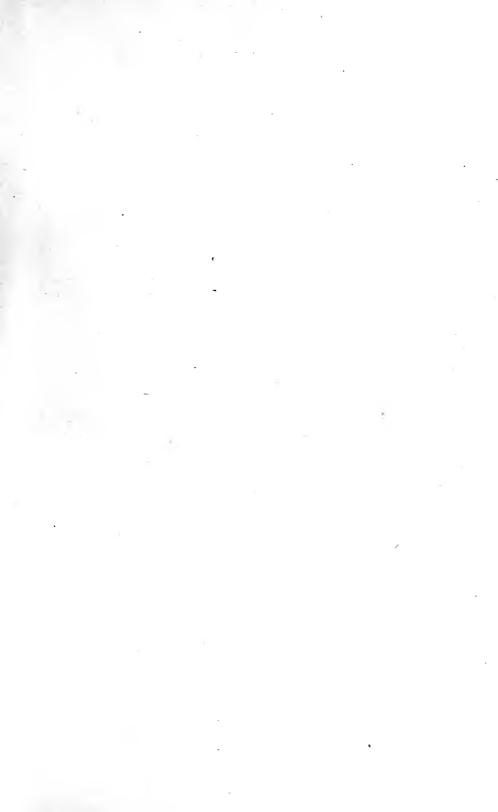
It is not to be inferred from the foregoing that the finish of the home is to be slighted. The Architect will be emphatic in advising good, honest, substantial floors, doors, and the rest, and upon precisely the same basis that he advises good construction. Only he will make sure that the construction is to be there before he thinks of the elaborateness of the surface work. The reason why a prospective Owner appreciates these shams which hide an inadequate and shoddy groundwork is not hard to find. It is a characteristic of our modern suburban houses not to be substantially built. How disappointing it is to watch the assembling of the flimsy balloon frame of a house which we are told is going to be a magnificent residence costing a large sum. Yet need we be so surprised to see the mere shadow of a framework doing service to hold up to public view the most gorgeously finished exterior and interior? Mark Twain recently remarked upon inspecting his architect's designs for his new suburban home, that he did not care again to see the house until there should be a brisk fire in the fireplace and a cat on the hearth. Mr. Clemens probably reasoned that if he were to see his home in the raw skeleton before receiving its fine dress, the impression that it would produce on him could never be as pleasant as if he were innocent of what is not made to be seen, but rather to be hidden. Is not this method of building merely a characteristic of our American desire to "make a grand impression," trusting to a superficial and indifferently trained observation to overlook its unsubstantial basis? The popular point of view on matters of art, we have already said, is seldom founded on a rational and intelligent basis, and so it is also with the construction of so many of the houses that are annually built in our suburbs. The eye of

the prospective Owner has been influenced for the bad by prevailing methods, and the Architect will require his closest coöperation to undo this injurious training.

We have no intention to indulge in further discussion of the relation between construction and design. Suffice it to say that the construction of a house does influence its design, and that the Architect is controlled in large measure, not only in designing but in planning the home, by the nature of the materials which he employs in its construction. Thus there is a limit to the area of unsupported ceiling which can be obtained if wood be the structural material, and this limit will not be the same if another material be used. Steel or reinforced concrete beams, for instance, permit of much longer spans than frame construction, and therefore of larger rooms and wider windows and doors. Likewise the arch is a form peculiar to stone or brick construction, and to reproduce it in wooden construction is a violation of design as well as of structure. This is only another way of saying that construction to be good must not only contain sufficient material to do the work required of it, but it must be economical, reasonable, and æsthetic. The Architect will not make a plan for a timber house which is so disposed as to require steel beams to support its roof; it is wasteful construction. He will not design a fireplace over an unsupported expanse of floor space, not because it is difficult to build, but because it is unreasonable and implies a faulty plan. Nor will he make a design which places a maximum of pier space in a façade over a maximum of openings. This is what happens in so many of our mercantile buildings which require large expanses of glass surface on the ground floor for showwindow purposes. In such a building it is an inevitable condition of the problem, but in a home such designing would result in a construction which from every point of view is to be avoided.



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